Dividend Smoothing and Investor Protection

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Abstract: *This paper examines the agency model of dividends where the importance of dividends depends on the level of investor protection. The importance of dividends is presented by the dividend smoothing concept, while the level of investor protection is determined by the legal origin. Within this, the sensitivity of dividends to earnings changes was analyzed to examine the universality of the dividend smoothing phenomenon. Subsequently, the difference in proportions of dividend smoothing firms within the common law and civil law countries was tested to determine which of these two systems attributes more importance to dividends. Finally, the application of Lintner's model was examined in transition countries as well as in United States. Research results show that dividend smoothing is a globally widespread phenomenon, but the likelihood to reduce or cut dividends is greater in civil law countries. Also, the largest percentage of dividend smoothing firms was recorded in common law countries.*

Keywords: investor; protection; dividend smoothing; law

JEL Classification: G28, G32, G35

Introduction

The practice of dividend smoothing was recognized by John Lintner in his 1956 paper: Distribution of Incomes of Corporations among Dividends, Retained Earnings and Taxes. In this paper Lintner has shown that managers of the largest U.S. firms are not inclined to reduce dividends, while they will increase dividends only if they believe that new levels of earnings can support an increase in dividends. Conclusions derived from original Lintner's model and its subsequent validations (Fama & Babiak, 1968; Aivazian et al., 2006; Brav et al., 2005; etc.) have made it a benchmark model of dividends. Incentives for this kind of policy stem from information asym-

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metry or agency problems and signalling theory. These two aspects are closely related because the agency problem arises from the information gap between the agent and principal. Most of the empirical research has been focused on the United States which is considered as the most developed capital market with strongly dispersed ownership structure and a significant level of information asymmetry between insiders and outsiders. Different sources of financing are characterized by different access to information and various types of conflict of interest, so the role of dividends can be seen as a reflection of these differences. More precisely, it is to be expected that dividends as a mechanism for reducing the information gap between insiders and outsiders, or as an investor protection mechanism, will be less important in bank-centric financial systems because financing through bank loans implies easier access to financial information of the firm. The aim of this paper is to examine the importance of the dividend policy in different legal environments, starting from the conclusions reached by La Porta et al. (2000), who demonstrated that stronger investor protection leads to more generous dividend distribution, assuming the firm does not have attractive investment opportunities.

The paper is organized as follows: The first part of the paper analyzes the previous research on the link between investor protection, development of capital markets and dividend policy. The second part of the paper describes the research sample and data sources. In the third part, the probability of dividend changes for the given changes in earnings within the four legal families is analyzed, while the fourth section examines the relationship between investor protection and dividend policy measured by the level of dividend smoothing. The fifth section includes testing the Lintner's model of dividends in transition countries that follow civil law tradition and in United States of America as common law country, while the sixth section brings final conclusions based on the work of this paper.

Literature review

Previous research studies have shown that stage of capital market development depends on strength of investor protection. Among the most important researches on the link between investor protection and capital market development are those of La Porta et al. which are based on the legal determinants of external finance. La Porta et al. (1997) point out that countries with weaker investor protection, measured by statutory rules and the quality of their application, have less developed capital markets. In this way, Anglo-Saxon (common) law countries have a stronger investor protection than countries whose legal origin comes from continental (civil) law. In addition, the authors have documented a negative link between investor protection and ownership concentrations, which is in line with the hypothesis that small and dispersed shareholders will not play a major role in countries that fail to protect their rights. Like-

wise, La Porta et al. (2006) have shown that securities market laws differ significantly between countries and that those who explicitly require transparency are positively related to the capital market development.

In addition to the quality of legal protection mechanisms, Francis et al. (2001) argue that national financial reporting standards are more accurate and more transparent in common law countries. This is not surprising, because the common law countries typically have higher dispersion of ownership structure and therefore higher demand for transparent corporate governance. Authors have further tested the differences between countries within the civil law to verify whether the capital markets of countries with more up-to-date and transparent accounting standards and a stronger audit are more developed from countries with less accurate and less transparent accounting standards. Authors failed to prove the existence of differences among civil law countries, after which they concluded that national standards and their application were the direct consequence of laws relating to investor protection. Similar findings are published by Leuz et al. (2003) who investigated how investor protection affects incentives of insiders to manipulate earnings within research sample of 31 countries. Authors have shown that more powerful legal investor protection limits the ability to manipulate earnings, leaving management less discretionary rights in making potentially harmful decisions for external investors.

On the basis of previous empirical research that shows that investor protection facilitates access to external finance, limits management incentives to expropriate investor funds, encourages more transparent financial reporting and improves arbitrage, Mclean et al. (2012) point to the importance of investor protection for firm-level resource allocation. In a sample of firms drawn from 44 countries during the period 1990 to 2007 authors have noticed that stock prices are more efficient in predicting investments and external finance in countries with a higher level of investor protection. They argue that firms with high Tobin have easier access to external finance in countries with stronger investor protection. In these countries, authors have also noted a lower sensitivity of the investments to cash flow as well as a negative link between external finance and cash flow. In short, a high level of investor protection ensures more efficient stock and / or debt issuing, so financing of potential investments does not rely solely on internal finance. Their research findings are in line with previous empirical research that demonstrated that developed capital markets, with more effective legal investor protection, encourage more accurate stock valuations, more efficient investments, and better access to external finance (Love, 2003; Wurgler, 2000; Rajan & Zingales, 1998; Fazzari et al., 2000; etc).

The quality of the investor protection equally affects the readiness of foreign investors to invest in domestic firms. This was pointed out by Poshakwale & Thapa (2011) who emphasize the importance of the investor protection mechanisms in cross-border investments. On a sample of 36 countries in the period 2001-2006 the authors have demonstrated that investor protection measures, especially those relat-

ed to foreign investors, are important determinants of foreign portfolio investments. This has shown that domestic authorities can encourage foreign investors to participate in the domestic capital markets simply by improving the quality of foreign investors' rights.

When it comes to the effects of investor protection on dividend policy, La Porta et al. (2000) argue that dividends are outcome of effective investor protection, rather than its substitute, because stronger investor protection makes insider manipulation legally risky. Thus, effective protection implies the possibility to use legal mechanisms to extract dividends if there is a suspicion that earnings retention would not benefit shareholders. Their research has also shown that fast growing firms pay lower dividends in countries with stronger investor protection, indicating that investors are willing to wait for dividends when investment opportunities are good and property rights are legally secured. By contrast, in countries with weaker investor protection, shareholders require dividend distribution irrespective of firm investment opportunities. However, Bhattacharya et al. (2016) found that corporate governance serves as substitute for the firm dividend policy when its idiosyncratic risk is high, while Moortgat et al. (2017) found that investor protection almost had no impact on dividend policy of Belgian firms listed on the Brussels Stock Exchange. Similarly, Atanassov & Mandell (2018) document that firms with weaker governance pay more cash dividends than better governed firms.

In addition, empirical research has shown that there is a different approach to dividend policy between public and private firms. As Michaely & Roberts (2012) point out, privately owned firms are significantly less likely to pay dividends than publicly traded firms, indicating that market monitoring plays an important role when it comes to the propensity of firms to pay dividends. On the other hand, Caoa et al. (2017) found that foreign institutional investors tend to allocate funds in Chinese firms that pay high dividends but they do not affect firm's future dividend payouts.

Structure of research and sample selection

The first part of the paper consists of sensitivity analysis of dividends to earnings changes across four legal families using the contingency tables. In this respect, dividend changes are classified as an increase, decrease, no change and dividend cut. Similarly, changes in earnings are classified as an increase, decrease, no change and loss. The aim of the analysis is to prove the universality of the dividend smoothing phenomenon. If dividend smoothing is a widespread approach to dividends then it is justified to define the importance of dividends by this concept. It is quite reasonable to assume that most firms will increase dividends in case of earnings growth regardless of whether or not firms apply dividend smoothing policy. In contrary, if firms follow the dividend smoothing policy, the decline in earnings will not be followed by

reduction in dividends nor will negative business result lead to the dividend cuts in most of the cases.

In the second part of the research, the so called "outcome" model of dividends was tested. This model has been studied previously by La Porta et al. (2000). They found that firms operating within common law countries have higher dividend payout ratios, measured by dividend to earnings ratio, dividend to operating profit ratio and dividend to cash flow ratio. They based their work on cross-section dataset of average payout ratios. However, the word "policy" implies a consistent approach to certain phenomena over a longer period of time, so the importance of dividends is more accurately defined by dividend smoothing policy if the reluctance to decrease or cut dividends is universal phenomena. For this reason, the differences of dividend smoothing levels between civil and common law countries have been tested using test. The aim of this test is to find a more reliable answer to the question of whether dividends are more important in countries that strongly protect the rights of investors or emerge as a substitute for investor protection in countries with weaker investor protection. In this respect, the importance of dividends is approximated by the tendency of smoothing dividends while the level of investor protection is determined by the legal origin. In order to avoid possible misunderstandings, the dividend smoothing phenomenon is defined very strictly - not reducing dividends per share for 5 years. The level of dividend smoothing is defined by the percentage of firms that did not reduce dividends for five consecutive years in the total number of firms that paid dividends for 5 years in a row.

After analyzing the sensitivity of dividends for given changes in earnings and after testing the differences of dividend smoothing levels between civil and common law countries, the analysis focused on testing the Lintner's model of dividends in transition countries (former Yugoslavia countries and other transition countries) and within United States as comparable country with most developed and mature capital market where this model was initially recognized. Testing of the Lintner's model was conducted using a multiple linear regression – pooled OLS.

In accordance with described steps of the research, three research samples were used. The first, which analyzes the probability of a changes in dividends for a given changes in earnings, consists of 3,994 nonfinancial firms from 22 units, 20 of which refer to individual countries, while the two units refer to characteristic groups of countries (former Yugoslavia countries and other transition countries). The two separate groups of countries are defined due to insufficient number of firms for separate treatment of certain countries. Only the countries for which research data on research variables were available were selected in the sample. The group of former Yugoslavia countries consists of Croatia, Slovenia, Macedonia and Bosnia and Herzegovina, while the group of other transition countries is made up of Soviet bloc countries - Latvia, Lithuania and Estonia - and other transition countries of Central and Eastern Europe such as Poland, Czech Republic, Hungary, Bulgaria, Romania, and Turkey.

The other 20 units are: United States, Great Britain, Australia, New Zealand, Canada, Japan, China, Portugal, Spain, France, Switzerland, Italy, Netherlands, Belgium, Denmark, Germany, Austria, Sweden, Norway, Ireland. The sample of 3,994 non-financial public firms is created out of firms that had paid dividends for at least 5 years throughout research period of 10 years (2003-2012.). Financial firms such as banks, insurance firms, investment firms, etc. are excluded from research sample because of the specific nature of their business. All firms that lacked data on dividend payments within the research period, as well as those firms that have not paid dividends at least 5 years, were not part of the research sample. Furthermore, the first sample is classified into 4 categories according to the classification of legal families used in work of La Porta et al. (1998). The corresponding number of firms by category is as follows:

1. Anglo-Saxon – Common Law (1,275 firms)
2. Continental-Civil Law
    a. German family (1,446 firms)
    b. French family (428 firms)
    c. Scandinavian Family (245 firms)

The second research sample, which was used to test the differences of dividend smoothing levels between civil and common law countries, is drawn from the first research sample by introducing an additional criterion, continuous dividend payment 5 year in a row (2008-2012). The data was initially collected for a period of 10 years (2003-2012), however, the research period was reduced to five years in order to isolate the potential impact of the 2008 financial crisis, which would certainly have a negative effect on dividend smoothing levels presented with the strict definition of dividend smoothing - not reducing dividends for 10 years in a row. In this way, the second research sample consists of the 3,171 nonfinancial firms that paid dividends for 5 consecutive years. The number of firms by country or by group of countries is shown in Table 2 together with research findings presented in section 5 of this paper.

The third research sample, used for testing the Lintner's model, consists of 480 firms which paid dividends for 10 consecutive years (2003-2012), with 21 firms from the former Yugoslavia region, 34 firms from other transition countries and 425 firms from the United States. The term "transition countries" in this paper refers to the countries of Central and Eastern Europe and the former Soviet Union countries which have been transformed from central planning into a market economy. A group of other transition countries consists of countries for which data on earnings and dividend per share were available for a period of 10 years (2003-2012), namely: Poland, Hungary, Lithuania, Latvia, Bulgaria, Romania and Turkey. The same rule applies to the group of former Yugoslavia countries where only Slovenia, Croatia, Bosnia and Herzegovina and Macedonia entered. It should be noted that in this case, dividend smoothing has a somewhat weaker definition of smoothing measured by the speed

of adjustment coefficient, so it is not necessary to isolate the potential effect of the financial crisis as in the case of criteria that would require no reduction in dividends for consecutive 10 years.

Dividends per share (DPS) data and earnings per share (EPS) data were collected from the Reuters Information Service and in the case of Croatia and Bosnia and Herzegovina from the audited and consolidated financial reports of sample firms. The effects of the exploratory variables were determined on the basis of their significance or p-value. The statistical programs SPSS and STATA were used for the implementation of the above mentioned statistical methods and tests.

Are firms globally reluctant to cut or decrease dividends?

The relationship between dividends and earnings changes across legal families is best seen trough contingency table. As we can see, when earnings increase, vast majority of firms in all legal families increase dividends (from 59.7% in German to 75.1% in the French civil law). As previously emphasized, looking at the "increase" category of earnings and dividends alone, it is difficult to draw any conclusions about the practice of dividend smoothing, since any increase may, but not be, justified by a higher level of profits. In that sense, if dividends were strongly sensitive to earnings changes, then similar results would be expected in case of earnings decrease. However, when earnings fall, much smaller percentage of firms decrease dividends while most of them continue to hold or increase dividends per share despite fall in earnings. Such conclusions are derived from Table 1 which shows the probability of changing dividends in a certain direction given certain change in earnings

Table 1: Frequencies of dividend changes given changes in earnings

CLASSIFICATION BY LEGAL ORIGIN (La Porta et al. 1998)			DIVIDEND CHANGES			
			No change	Increase	Decrease	Dividend cut
EARNINGS CHANGES	No change	Common law	45.9%	44.1%	9.5%	.5%
		Civil law (German family)	41.7%	50.0%	8.3%	.0%
		Civil law (French family)	50.0%	33.3%	14.6%	2.1%
		Civil law (Scandinavian family)	16.7%	50.0%	25.0%	8.3%
	Increase	Common law	24.0%	70.3%	4.6%	1.1%
		Civil law (German family)	34.3%	59.7%	5.8%	.2%
		Civil law (French family)	16.7%	75.1%	7.5%	.6%
		Civil law (Scandinavian family)	15.5%	75.1%	8.5%	.8%
	Decrease	Common law	30.8%	52.6%	15.0%	1.6%
		Civil law (German family)	52.1%	27.0%	20.4%	.5%
		Civil law (French family)	30.8%	33.8%	31.8%	3.6%
		Civil law (Scandinavian family)	29.3%	31.0%	35.4%	4.2%
	Loss	Common law	35.4%	18.3%	29.9%	16.4%
		Civil law (German family)	38.6%	5.9%	37.4%	18.1%
		Civil law (French family)	23.3%	13.2%	29.1%	34.4%
		Civil law (Scandinavian family)	22.4%	13.9%	33.9%	29.7%

Source: Džidić (2016)

As shown in the previous table, in the case of earnings growth, majority of firms in all legal families increase dividends per share, with the largest percentage of firms increasing the dividends being recorded in the French and Scandinavian civil law family. Conversely, in the case of earnings decrease, more than 60% of the firms in each of the legal families increase or retain dividends per share at the same level. At the same time, the smallest percentage of firms that decrease dividends after decline in earnings was recorded among the common law countries - 15%. Across civil law countries the smallest percentage of dividend decreases was recorded in the German family - 20.4 percent. In other words, the largest percentage of firms that increase or retain dividends per share at the same level after decline in earnings was recorded in common law countries - 83.4% (30.8% + 52.6%), followed by German legal family - 79.1% (52.1 % + 27%), French legal family - 64.6% (30.8% + 33.8%) and Scandinavian legal family - 60.3% (29.3% + 31%). Manager aversion to cut dividends was best shown in cases of negative earnings, where the percentage of dividend cuts stood bellow 35% in each group of the legal families. Across civil law countries, firms in French (34.4%) and Scandinavian (29.7%) legal family reacted more strongly to the loss compared to firms in the German legal family (18.1%), and in particular with respect to the common law countries, where only 16.4% of firms decided to cut dividends.

Research results show global aversion to decrease or cut dividends, but point to clear distinction between levels of such aversion in different legal environments. Having in mind the fact that the level of investor protection affects their readiness to invest and that common legal origin more strongly protects shareholders irrespective of GDP per capita (La Porta et al., 1998), it can be argued that the differences in capital market development between these two legal origins are, inter alia, the consequence of a different approach to investor protection. Hence, the more developed capital market the greater importance of dividends as signalling mechanism used by firms to signal fair treatment of shareholders through a stable, continuous, and to some extent certain, dividend payout.

Dividend smoothing - Civil vs. Common legal origin

Table 2 shows countries from the second research sample, their legal origin, the percentage of dividend smoothing firms – i.e. not reducing dividend per share five years in a row (PERCENT), as well as the related rating of investor protection measured by Anti-self-dealing Index indicator (ASDI) from work of Djankov et al. (2008). Within the group of countries in the region, only Croatia has the ASDI rating of investor protection. In the absence of a better indicator and due to the similarity of legal origin of neighbour countries, ASDI rating for Croatia was taken as a common measure for all the countries in the former Yugoslavia region. For a group of other transition countries the level of investor protection was measured by the group average of the ASDI index. At the bottom of the table, t-statistics are presented for tests of the proportions of dividend smoothing firms between civil and common law countries, and then for the tests of the averages of the ASDI ratings between those groups.

Table 2: Testing the differences in dividend smoothing levels and investor protection ratings

Country	Number of firms	PERCENT	ASDI	Legal origin
Australia	157	0.42	0.79	Common
Austria	24	0.42	0.21	Civil
Belgium	20	0.50	0.54	Civil
Switzerland	51	0.25	0.27	Civil
China	228	0.34	0.78	Civil
Germany	61	0.43	0.28	Civil
Denmark	24	0.46	0.47	Civil
Spain	28	0.32	0.37	Civil
Finland	45	0.33	0.46	Civil
France	187	0.44	0.38	Civil
Great Britain	294	0.68	0.93	Common
Italy	49	0.33	0.39	Civil
Japan	1025	0.35	0.48	Civil
Netherlands	31	0.45	0.21	Civil
Norway	24	0.42	0.44	Civil
New Zealand	38	0.34	0.95	Common
Portugal	12	0.25	0.49	Civil
Sweden	71	0.49	0.34	Civil
United States	516	0.78	0.65	Common
Canada	184	0.44	0.65	Common
Other transition countries	75	0.15	0.45	Civil
Former Yugoslavia countries	33	0.15	0.25	Civil
	Mean diff.	Ha: diff < 0	Ha: diff != 0	Ha: diff > 0
Civil vs. Common (PERCENT)	-0,1754	Pr(T < t) = 0.0070	Pr(|T| > |t|) = 0.0140	Pr(T > t) = 0.9930
Civil vs. Common (ASDI)	-0,3932	Pr(T < t) = 0.0000	Pr(|T| > |t|) = 0.0000	Pr(T > t) = 1.0000

Source: Author's Calculation

As can be seen from Table 2, at a significance level of 1 percent, there is a significantly smaller percentage of dividend smoothing firms in civil law countries than in common law countries. In addition, at 1% significance level, there is also a significantly lower average rating of investor protection (ASDI) in the same group of countries. Bearing in mind that dividends are one of the two sources of equity investment returns, the results show that consistent policy of dividend smoothing becomes more important with more developed capital markets that systematically protect investors, regardless of the level of their influence on decision-making. This is in line with previous research of La Porta et al. (2000) who have shown that firms operating within common law countries have greater dividend payout ratios.

Do firms in transition countries follow the Lintner's model?

Lintner's model is based on current earnings and previous year's dividends with a higher emphasis being placed on dividend changes rather than absolute amount of dividend per share. The Lintner's findings demonstrate that the management of the firm is conservative in terms of increasing dividends if such increase is subject to correction in the foreseeable future. He argued that firms smooth dividends by adjusting them to long-term target payout ratio, whereby the change in current dividends is the function of current earnings and previous year's dividends. In his 1956 work, Lintner points out that most dividend decisions can be explained on the basis of the following equation:

$$D_{it} - D_{i(t-1)} = \alpha_i + c_i\big(D_{i,t}^* - D_{i(t-1)}\big) + u_{it} \tag{1}$$

Where

$$D_{i,t}^* = r_i E_{it} \tag{2}$$

and where

$D_{i,t}^*$ = Planned dividend payment in period t
D_{it} = Actual dividend payment in period t
r_i = Target payout ratio
E_{it} = Net profit for the period t
α_i = The constant associated with the growth of dividends
c_i = Partial adjustment factor
u_{it} = Error term

Constant will be zero for individual firms (which do not pay dividends) but will generally be positive because it reflects the aversion towards dividend reduction. The term represents the difference between the observed and expected changes in on the basis of other terms in the equation (Lintner, 1956, p. 107). By substitution of (2) into (1) the model can be simplified into the form of multiple regression analysis as follows:

$$\Delta D_{it} = \alpha_i + r_i c_i E_{it} - c_i D_{i(t-1)} + u_{it} \tag{3}$$

or

$$D_{it} = \alpha_i + r_i c_i E_{it} + (1 - c_i)D_{i(t-1)} + u_{it} \tag{4}$$

Thus, the statistical model for testing the Lintner's model of dividends can be written as:

$$DPS_{i,t} = \alpha_i + \beta_1 EPS_{i,t} + \beta_2 DPS_{i,t-1} + u_{i,t} \tag{5}$$

where

$DPS_{i,t}$ = Current dividend per share
$EPS_{i,t}$ = Earnings per share, after tax
$DPS_{i,t-1}$ = Dividend per share in previous year
$\beta_1 = r_i c_i$
$\beta_2 = 1 - c_i$

The proposed model implies that dividend changes are the function of current earnings and previous year's dividends, where the speed of adjustment coefficient is estimated as $1 - \beta 2$, and the target payout ratio as $\beta_1/(1 - \beta_2)$. The model was tested on secondary panel data using multiple regression analysis - pooled OLS with vce (*cluster firm*) option that controls for the problem of heteroscedasticity and autocorrelation. Regression results are presented in Table 3.

Table 3: Pooled OLS results (Lintner's model)

	former Yugoslavia countries	Other transition countries	United States
EPS - β_1	0.1137**	0.0827*	0.0302***
	(3.27)	(2.39)	(4.30)
DPS_LAG - β_1	0.6710***	0.7641***	0.8451***
	(18.98)	(5.56)	(15.81)
Constant	3.6361	0.6020*	0.1015**
	(1.81)	(2.35)	(2.86)
Observations	189	306	3825
Prob > F	F(2, 20) = 262.92 0.0000	F(2, 35) = 147.29 0.0000	F(2, 424) = 222.25 0.0000
R-squared	0.6250	0.8531	0.7634
t statistics in parentheses; *p< 0.05, **p< 0.01, ***p< 0.001			

Source: Author's Calculation

Pooled OLS results show that current earnings per share, as well as previous year's dividends per share, are significant predictors of current dividends at 5% significance level in both groups of transition countries. The same is true for United States, the most developed capital market in the world, where the Lintner's model was originally tested. Moreover, regression coefficient of lagged dividends is statistically significant at 0.1% significance level in all groups of countries. The R-squared statistic shows that Lintner's model explains 62.50% of dividend behaviour in former Yugoslavia

sample, 85.31% in other transition countries and 76.34% in United States (original Lintner's model explained 85% of dividend changes). The F statistic is significant at 1% significance level in each group of countries indicating overall validity of the models.

Having in mind the settings of the Lintner's model, it is clear that the speed of adjustment coefficient is estimated as $1 - \beta_2$, and the target payout ratio as $\beta_1/(1 - \beta_2)$. In this way, the former Yugoslavia countries and other transition countries recorded an average target payout ratio of 35%, while the US recorded a somewhat lower target payout ratio of 20%. Furthermore, the highest speed of adjustment coefficient was recorded in former Yugoslavia countries - 0.33, followed by other transition countries - 0.24 while the lowest adjustment rate of dividends being recorded in United States - 0.16. Lintner originally recorded the average target dividend payout ratio of 50% and the average speed of adjustment of 30%. The lower target payout ratio compared to the Lintner's research period is the consequence of a well documented significant decline in propensity to pay dividends. This phenomenon was recognized by Fama and French (2001) documenting that the share of U.S. firms paying dividends fell from 66.5 percent in 1978 to 20.8 percent in 1999. The cause of this trend was found in new firms on the stock exchange (after 1978) that had good growth opportunities, lower assets and lower profitability, which are, according to previous research, typical characteristics of firms that do not pay dividends. DeAngelo et al. (2004), on the other hand, responded that, although the number of dividend paying firms has decreased by more than 50 percent in the last two decades, total paid dividends increased in the same period, concentrating among smaller number of firms. The authors point out that increase in dividends among top dividend payers exceeds modest reductions across firms that pay lower dividends. Globally reduced propensity to pay dividends was also shown in recent study by Fatemi & Bildik (2012) on a sample of 17,106 firms drawn from 33 countries in the period from 1985 to 2006. The authors found that the number of dividend payers dropped from 87% to 53%, and the main reason for this was the increased tendency of firms to buy back their own stocks.

On the other hand, existing differences in speed of adjustment coefficients between the former Yugoslavia countries, other transition countries and the United States can be explained by the difference in levels of investor protection measured by ASDI index. According to this index United States has the highest rating of investor protection - 0.65, followed by other transition countries – 0.45 and former Yugoslavia countries - 0.25. Even within civil law countries the level of investor protection explains the differences in dividend smoothing levels to some extent. These results, together with the previous validations of the Lintner's model, show the widespread application of the Lintner's model irrespective of the country legal origin, so it is reasonable to state that the Lintner's model is still the best model of dividends behaviour. On the other hand, it is clear that the difference in levels of investor protection reflect the difference in levels of dividend smoothing. This is best seen trough percentages

of dividend smoothing firms among different legal environments as well as the differences in the speed of adjustment coefficients.

Conclusion

This paper deals with the agency's model of dividends according to which the importance of dividends is determined by the degree of investor protection. Within this, the sensitivity of dividends to earnings changes was analyzed within the four legal families with the aim of making conclusions about the universality of dividend smoothing phenomena. Subsequently, a dividend smoothing levels between common law countries and the civil law countries were compared by analyzing the percentage of firms that did not reduce dividends for five consecutive years in the total number of firms that paid dividends for five years in a row. Finally, the Lintner's model was tested in transition countries (former Yugoslavia countries and other transition countries) as well as in the United States.

The results of the first part of the paper, summarized in Table 1, show that in each of the four legal families, more than 60% of firms are increasing or retaining dividends at the same level despite a decline in earnings, with this percentage being the highest in common law countries, 83,4 percent. On the basis of these results, it can be concluded that the phenomenon of the dividend smoothing is globally present and dominant in common law countries which are characterized by stronger mechanisms of investor protection and greater dividend payout ratios La Porta et al. (1998, 2000). The same conclusion is reached in the second part of the study, which tested the difference of proportions of dividend smoothing firms between common and civil law countries. The results show that common law countries have a significantly larger percentage of firms that smooth dividends at 1% significance level. In the third part of the study, it is found that the Lintner's model still well explains dividends behaviour in United Sates as well as in both groups of transition countries, with the slowest speed of adjustment coefficient (0.15) being recorded in the United States. Furthermore, dividend paying firms from other transition countries recorded a lower speed of adjustment coefficient than firms in the former Yugoslavia countries, which to some extent can be explained by a higher level of investor protection in other transition countries measured by the anti-self dealing index.

Having in mind these research results, it seems that investor preferences for dividends are best proven by the use of legal mechanisms of investor protection to extract dividends. For this reason, side effects of agency issues may be the best answer to the question why firms are paying dividends. This is also shown by this paper, as the largest percentage of dividend smoothing firms is recorded in common law countries that generally have stronger investor protection. In addition to this, the lowest speed of adjustment coefficient is recorded in the United States as a typical representative of common law countries with highly developed capital market.

The positive impact of investor protection on dividend stability is in line with hypothesis that dividends are output of strong investor protection (La Porta et al., 2000). This indicates that dividends are very important to investors, especially in the case of weaker investment opportunities. Therefore, decision makers who seek to improve capital markets and systematically incentivize participation of domestic and foreign investors in domestic capital markets should strive for effective legal mechanisms that help investors materialize their ownership rights. This is also important insight for portfolio investors who prefer to allocate funds in dividend paying stocks, especially in times of low interest rates.

This empirical research, as well as any other research, has certain limitations and shortcomings that represent new research challenges. These limitations are primarily related to the quality of data from other transition countries and the former Yugoslavia countries, as well as the youth of their capital markets, which does not provide enough firms for analysis to form more sound conclusions on the engagement of these firms in dividend smoothing. In the end, the lack of data on dividends and earnings per share for firms in certain countries such as Serbia and Montenegro or other transition countries, to a certain extent, distorts the general conclusion on the dividend policy of firms in these groups of countries. Overcoming these limitations is order to gain stronger conclusions about the importance of dividend policy in different legal environments is fruitful avenue for future research.

REFERENCES

Aivazian, V., Booth, L. & Cleary S. (2006). Dividend Smoothing and Debt Rating. Journal of Financial and Quantitative Analysis, 41, 439–453.

Atanassov, J. & Mandell, A. J. (2018). Corporate governance and dividend policy: Evidence of tunneling from master limited partnerships. Journal of Corporate Finance, 53(C), 106-132.

Bhattacharya, D. Li, W. & Rhee, S. G. (2016). Does Better Corporate Governance Encourage Higher Payout? : Risk, Agency Cost, and Dividend Policy. HIAS discussion papers, available at https://pdfs.semanticscholar.org/f48e/112c450660ec27f60e45094d96a20a1bc13b.pdf.

Brav, A., Graham, J. R., Harvey, C. R. & Michaely R. (2005). Payout policy in the 21st century. Journal of Financial Economics, 77, 483–527.

Caoa L, Du, Y. & Hansen, J. Ø. (2017). Foreign institutional investors and dividend policy: Evidence from China. International Business Review, 26 (5), 816-827.

DeAngelo, H., DeAngelo, L. & Skinner, D. (2004). Are dividends disappearing? Dividend concentration and the consolidation of earnings. Journal of Financial Economics, 72, 425–456

Djankov, S., La Porta, R., Lopez-de Silanes, F. & Shleifer A. (2008), The Law and Economics of Self Dealing. Journal of Financial Economics, 88 (3), 430-465.

Džidić, A. (2016). Impact of Capital Market Development on Dividend Policy, Doctoral dissertation, Faculty of Economics, University of Mostar and Faculty of Economics, University of Split.

Fama, E. & Babiak H. (1968). Dividend policy: an empirical analysis. Journal of the American Statistical Association, 63, .1132-1161.

Fama, E.F. & French K.R. (2001). Disappearing dividends: Changing firm characteristics or lower propensity to pay. Journal of Financial Economics, 60, 3-43.

Fatemi A. & Bildik R. (2012). Yes, Dividends Are Disappearing Worldwide Evidence. Journal of Banking & Finance, 36 (3), 662-677.

Fazzari, S., Hubbard, G. & Petersen B. (2000). Investment - cash flow sensitivities are useful: a comment on Kaplan and Zingales. Quarterly Journal of Economics, 115, 695-705.

Francis, J. R., Khurana, I. K. & Pereira R. (2001). Investor Protection Laws, Accounting and Auditing Around the World. available at SSRN: http://ssrn.com/abstract=287652

Lintner, J. (1956). Distribution of Incomes of Corporation among Dividends, Retained Earnings and Taxes. The American Economic Review, 2, 97-113.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny R. (1996). Law and Finance, NBER Working Paper, 5661.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny R. (1997). Legal determinants of external finance. Journal of Finance 52 (3), 1131-1150.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny R. (1998). Law and finance. Journal of Political Economy, 106 (6), 1113-1155.

La Porta, R., Lopez-de-Silanes, F., & Shleifer A. (1999). Corporate ownership around the world. Journal of Finance, 54 (2), 471-517.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., &. Vishny R. (2000). Agency problems and dividend policies around the world. Journal of Finance 55 (1), 1-33.

La Porta, R., Lopez-de-Silanes, F., & Shleifer A. (2006). What Works in Securities Laws? The Journal of Finance, 61 (1), 1-32.

Leuz, C., D. Nanda & Wysocki P. (2003). Earnings Management and Investor Protection: An International Comparison. Journal of Financial Economics 69, 505–527.

Love, I. (2003). Financial development and financing constraints: International evidence from the structural investment model. Review of Financial Studies 16, 765-791.

Mclean, R. D., Zhang, T. Y. & Zhao, M. X. (2012). Why does the law matter? Investor protection and its effects on investment finance and growth. Journal of Finance 67, 313–350.

Michaely, R. & Roberts, M. (2012). Corporate Dividend Policies: Lessons from Private Firms. Review of Financial Studies, (25) 3, 711-746.

Moortgat, M., Annaert, J. & Deloof, M. (2017). Investor protection, taxation and dividend policy: long run evidence from Belgium, 1838- 2012. Journal of Banking and Finance, 85, 113-131.

Poshakwale, S.S. & Thapa C. (2011). Investor protection and International Equity Portfolio Investments. Global Finance Journal, 22 (2), 116–129.

Rajan, R. G. & Zingales L. (1998). Financial Dependence and Growth. American Economic Review, 88 (3), 559-586.

Wurgler, J. (2000). Financial Markets and the Allocation of Capital. Journal of Financial Economics, 58 (1-2), 187-214.