EQUITY ISSUANCE AND CORPORATE DIVIDEND POLICY
IN EMERGING ECONOMY CONTEXT

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Abstract: This article explores links between the size of a company, industrial sector in which a company operates, concentration of capital, size of business and emission and dividend policy in the Ukrainian corporate sector. Guided by insights from the bird-in-hand theory, clientele theory, signaling theory, and agency theory, we justify factors that determine the choice of shares’ placement by Ukrainian public joint stock companies and forming of their dividend policy related to the current operating conditions of the Ukrainian corporate sector. Using mathematical approach of tree classification construction in the form of random forest algorithm, we found out that maximization of the share capital value, that is involved in shares issuance of Ukrainian PJSCs, is not a priority for owners of corporate rights. 86.1 per cent of companies have selected private placements of shares. In the non-financial sector, 87.5 per cent of companies opted private placements. The study revealed also only a small share (3.5%) of Ukrainian joint stock companies paid dividends to shareholders. However, the dividend policy of Ukrainian joint stock companies changed when they listed their shares on foreign stock markets. In this case two thirds of explored firms paid dividends.

Keywords: dividend policy, emission policy, random forest algorithm, Ukraine

INTRODUCTION

Additional share issuance can be a source of significant amount of resources for enterprise development [Iakovleva et al. 2013, Solesvik 2012, Sonenshein 2014]. Equity issuance and corporate dividend policy should meet the interests
of shareholders, including minority ones, and create conditions for sustainable corporate development. Scholars rarely study equity issuance and corporate dividend policy in emerging markets, particularly in countries that appeared after the Soviet Union’s collapse. Specificity of equity issuance and corporate dividend policy in post-Soviet countries is defined by processes of market economy revival and the stock market restoration. Therefore, it is time to study not only universal barriers, but also country-specific barriers and incentives related to the introduction of such equity issuance and dividend policy. In this study, we intend to address the gap in the knowledge base, related to equity issuance, and corporate dividend policy in emerging economy conditions. We focus on the Ukrainian market context.

The optimal choice between public equity offerings, equity private placements and economically sound corporate dividend policy is an integral part of an effective corporate governance system. It not only directly affects the interests of shareholders, but also impacts significantly the investment attractiveness of the issuer, its financial results and economic growth potential. Public equity offerings implies sale of shares to any potential investor, while private equity placement can be made only to existing shareholders and to a predetermined list of persons, whose number should not exceed one hundred [Verkhovna Rada 2006]. Limiting the number of investors through the introduction of private equity placement is conditioned by insufficient investment attractiveness of the issuer or non-financial reasons.

Therefore, the purpose of the study was the justification of factors that determine the choice of shares’ placement by Ukrainian public joint stock companies (PJSCs) and forming of their dividend policy related to the current operating conditions of the Ukrainian corporate sector. This study aims to answer the following research questions: "What is the pattern of equity issuance in the Ukrainian stock market?" and "Is a dividend policy of current interests for the Ukrainian corporate sector?".

In addressing these questions, we have investigated one hundred and forty four PJSCs. Using mathematical approach of tree classification construction in the form of random forest algorithm, we found out that maximization of the share capital value that is involved in the shares issuance of Ukrainian PJSCs is not a priority for owners of corporate rights. 86.1 per cent of companies have selected private placements of shares. In the non-financial sector, this figure is even higher, i.e. 87.5 per cent of companies opted private placements. Thus, Ukrainian public joint stock companies select private placements of shares more often than in countries with developed stock markets [Gomes and Phillips 2005].

The paper is organised as follows. In the next section, we consider the previous studies related to equity issuance and dividend policy. In Section RESEARCH METHOD, we describe the methodology of this study. In Section FINDINGS, we present the findings of the research. In Section DISCUSSION, we analyse the findings with the help of theories presented in Section LITERATURE
REVIEW. The paper terminates with implications for research, practice and policymakers, the avenues for further research, and conclusions.

LITERATURE REVIEW

Recent studies have shown that in countries with developed stock markets, almost half of the issues by public firms are public offerings [Gomes and Phillips 2005]. Private placement is mainly typical for small businesses. For example, the results of Gomez and Phillips’s [2005] study show that 58 per cent of the equity and convertibles issues are in the private market. In the same time, in the group of small businesses this figure reaches 81 per cent. Other factors that determine the probability of certain issuance type selection are degrees of information asymmetry and the rising cost of corporate rights according to the financial statements for the period prior to the additional issuance. Some studies provided empirical evidence for a significant positive correlation between the asymmetry of information (the book to market ratio) and the probability of private placement [Chen et al. 2002, Dewa and Izani 2010, Folta and Janney 2004, Goh et al. 1999]. Given the fact that the shares of small public companies generally underestimated by the stock market, it is clear why these issuers give preference to the private equity placement. The earning performance and rising cost of shares in the period preceding the additional issue, on the contrary, increases the likelihood of a public equity offering [Dewa and Izani 2010, Gomes and Phillips 2005, Goh et al. 1999, Lee and Kocher 2001].

Concepts of dividend policy are a popular research topic in the professional literature [Al-Malkawi et al. 2010, Ben-David 2010, Brealey et al. 2010, Kinkki 2001]. Some of these concepts are based on radically opposite principles (i.e., dividend policy irrelevance, minimization and priority dividend payments). Others reveal the essence of relations between the subjects of the stock market regarding dividends payment (signaling and clientele effect hypotheses).

According to the dividend irrelevancy theory proposed by Miller and Modigliany [1961], the stock price is determined by the firm’s investment policy and does not depend on dividend decisions. In other words, the firm’s value will be the same regardless of how the firm distributes its income. The dividend irrelevancy theory is based on certain assumptions about perfect capital market where transactions costs, risk of uncertainty and difference between taxes on dividends and reinvested earnings do not exist. These assumptions are far from reality. Market imperfections make the issue of dividend policy impact on the value of the firm much more complicated. Therefore, empirical studies showed different results. Some of them have not confirmed that the dividend policy affect the firms value [Al-Malkawi et al. 2010]. Others have provided evidence inconsistent with the dividend irrelevance theory [Al-Malkawi et al. 2010].
Equity issuance and corporate dividend policy …

Bird-in-hand theory

The bird-in-hand theory elaborated by Lintner [1962] and Gordon [1963] states that even when a firm’s average rate of return is equal to the cost of capital, the payment of dividends positively affects the stock price and the value of the firm. Such an impact of dividend policy is connected with rational investor’s decision making. Under conditions of future cash flow uncertainty, an investor prefers his current dividend (a bird in the hand) over his future dividend (capital gains or two birds in the bush). If it is so, higher dividend payouts reduce the risk of uncertainty and cost of capital. Hence, the firm’s value increases. Empirical studies provided very limited support for the bird-in-hand theory [Al-Malkawi 2010]. It’s still debatable whether the dividend policy depends on the firm’s risk or vice versa [Bhattacharya 1979].

The explanations of dividend payments on the basis of investor behavioral biases are not just limited to the “bird-in-hand” argument. For instance, Shefrin and Statman [1984] suggest that investors may favor dividend stocks because the utility from series of dividends (small gains) is perceived better than one large capital gain. According to these authors, another explanation is associated with the likelihood of psychologically objectionable overconsumption which takes place for investors as they sell no dividend stocks to compensate missed dividends.

Clientele theory

The clientele effect theory sounds more realistic. It does not deny the evident fact that stockholders are interested in after-tax return but distinguishes the preferences of different investor classes (clienteles). Some classes of investors oriented on steady income prefer higher dividend yield if tax rates are relatively low or transaction costs connected with selling stocks are essential. One of such a clientele is the class of elderly low-income investors [Pettit 1977, Shefrin and Thaller 1988]. These investors not only favor high-payout stocks but also tend to purchase them after dividend announcements [Barber and Odean 2008]. Similar preferences are demonstrated by investors whose portfolios consist mostly of low risk securities [Pettit 1977, Scholz 1992] and local firms shares [Becker et al. 2011]. Institutional investors form the clientele oriented to high-dividend stocks too. Allen and colleagues [2000] suggest that a part of the reason lies in relative tax advantages of institutional investors. Brav and Heaton [1997] associate the preferences of institutional investors with so called “prudent man rules” specified in corporate charters.

According to the clientele effect theory, a diametrically opposed attitude to dividend payments is typical for investors in high tax brackets. At the same time some shareholders are indifferent with regard to dividend yield [Elton and Gruber 1970]. The clientele effect as applied to corporate management means the importance of a stable dividend policy that takes stockholders preferences into account [Brav et al. 2005, D’Souza et al. 2015, Scholz 1992]. The essence
of the clientele effect theory is in gradual increase in the homogeneity of the shareholders in terms of their relationship to the distribution of net profit for dividend funds and savings. Stakeholders, who are dissatisfied with decisions taken by the general meeting of the company, carry out transactions of sale and purchase of corporate rights, becoming co-owners of shares whose issuers have optimal dividend policy, in their opinion. So, this theory does not ignore the rights of minority shareholders and justifies the ways of harmonizing the different groups of co-owners of the company. The clientele effect theory, however, was criticized for weak empirical support for clientele effect [Barclay et al. 2009, Grinstein and Michaely 2005, Kuzucu 2015].

Signaling theory

The existence of the asymmetric information problem for real imperfect capital markets led to the emergence of the signaling theory. Managers, who possess inside information about firm’s future, sustainable earnings and growth, need to convey it to information-sensitive investors with a purpose to obtain a positive reaction of the stock market. The dividend announcement is an appropriate tool for it [Bhattacharya 1979, Forti and Schiozer 2015, John and Williams 1985; Miller and Rock 1985, Kuzucu 2015]. An increase in dividend payments may be used by management as a signal of the good firm’s prospect and perceived by investors respectively. Under these circumstances the stock price usually grows. At the same time, the capital market reacts unfavorably on dividend cuts announcements even if they are not connected with worsening the performance and prospects of a firm [Soter et al. 1996]. Some empirical studies, however, found out that the dividends announcement is considered rather as an indicator of a firm’s maturity and low idiosyncratic volatility than a signal of predicted growth in profits [Chay and Suh 2008, DeAngelo et al. 2006, Grullon et al. 2002]. Furthermore, managers may have no incentives to share inside information with the stockholders.

Agency theory

The latter critical argument addressed to signal theory formed a basis for the agency hypothesis. The management objectives do not always coincide with shareholders interests in the real world. The wealth of a firm, where fraction of insider ownership is unessential, may be less important for managers than achievement of their personal goals. It causes a conflict of interests with shareholders (so-called agency problem). The monitoring of corporate decision-making by shareholders and potential investors is needed for solving this problem. According to the agency theory, a high payout ratio is associated with external financing and monitoring [Easterbrook 1984]. The cost minimization model developed on the basis of agency theory [Rozeff 1982] is used for calculating optimal payout ratio. This is the ratio which minimizes the amount of transaction costs of external financing and agency costs.
It is worth noting that the agency theory has some links with arguments in favor of the clientele effect and the signaling theory [Allen et al. 2000]. Institutional investors willingly invest in monitoring the quality of the securities' issuers thus reducing the agency problems. High quality firms are interested in such a monitoring because it provides an opportunity to attract financially powerful investors. Taking into account that institutional investors have relative tax advantages and belong to clientele that prefers dividend stocks, good quality firms tend to attract those paying stable and high dividends, i.e. using the information content of dividends.

As indicated above, some studies provided empirical evidence that the business size [Parsyak and Zhuravlyova 2001, Parsyak and Zhuravlyova 2007], earning performance and degree of information asymmetry affect the choice between public equity offerings and equity private placement. However, the question has remained unanswered, namely - to what extent is this true for the corporate sector, operating in Ukrainian emerging stock market? It leads us to suggest the following hypothesis.

**Hypothesis 1:** The public companies with negative financial performance and/or high level of information asymmetry, particularly those relating to small businesses, tend to choose equity private placement.

In some emerging markets, a high concentration of capital is observed. We can suggest that a high concentration of capital is not the result of fortuitous circumstances but determined by certain interests of majority shareholders. In the institutional environment that is inadequate not only to the objectives of sustainable development, but also to the essence of the market economy, orientation of majority shareholders at preserving the complete control over the company is often the principal limitation of the equity issuance policy. However, it is not typical for owners of corporate rights such as joint investment institutions and the state. They are usually focused on purely economic criteria for evaluating the effectiveness of issuance policies. It is logical to assume that the overall concentration of capital in the hands of large owners in the absence of significant state involvement and / or institutional investors in the authorized capital of joint stock companies is a sign that they prefer the private placement. Taking into consideration the regulative requirements of the National Banks, particularly to the size of bank capital, it is logical to assume that belonging to the banking sector influences the type of equity issuance. Therefore the following hypothesis is proposed:

**Hypothesis 2:** The choice between public equity offerings and equity private placement depends on the overall concentration of the share capital in the hands of large owners, substantial part of the state and / or institutional investors in the authorized capital of the company and its belonging to the banking or non-financial sector.

The equity issuance is an opportunity for public companies with positive financial performance to attract financially powerful institutional investors, sending
them signals in the form of dividend payments. As shown above, this is consistent with the precepts of three popular dividend theories (signaling, clientele and agency theories). Firms in emerging markets often need investments. It would be logical to expect dividend payments as a signal to investors in such situation. However, joint stock companies in the Ukrainian emerging economy have a specific structure of the share capital and operate in imperfect institutional environment. We, therefore, hypothesize the following:

_Hypothesis 3: Under conditions of high concentration of share capital in the hands of large owners in an underdeveloped stock market, the public companies tend to disregard dividend policy._

**RESEARCH METHOD**

**Sources of data**

In order to assess the dividend policy of Ukrainian issuers and determine the factors that influence the choice of equity issuance, we have analyzed official financial reports of corporations in banking and non-financial sectors, which conducted public equity offering or private equity placement for an amount exceeding 25% of the share capital during 2011 and 2012. We have used the following sources of information: public information database of the National Commission on Securities and Stock Market [NCSSM 2014], in particular Electronic System of Comprehensive Information Disclosure (ESCI) by issuers of shares and bonds, which are listed and traded [NCSSM 2015].

**Method**

In order to determine factors influencing the selection of issuance type, we have applied mathematical approach of tree classification construction in the form of random forest algorithm [Breiman 2001] and software package STATISTICA 10. Random forests is ensemble learning algorithm that is a substantial modification of bagging. The method operates by constructing an ensemble of de-correlated trees, and then averages them [Hastie et al. 2009]. Random forests envisages generating new samples based on an initial sample, as well as formation of the beyond the sample test data set to determine the average error of results and their analysis based on a multitude of classification trees. Each iteration of the tree-growing process is performed through random selection of the input variables. Each node of a tree is determined on the basis of the best split among a subset of them. Classification is carried out using a majority of the class votes obtained from each tree [Hastie et al. 2009].

The selection of this algorithm was driven by (a) the need to study categorical variables, (b) the ability to obtain formal assessment of their importance for the purpose of classification, (c) the lack of previous information regarding the type
of data distribution and the forms of relationship between them, as well as (d) high reliability and accuracy of the algorithm.

It is worth noting that the choice of the issuance type in Ukraine is determined not only by economic but also legal factors, such as for example the legislative restrictions related to the right to increase the authorized capital by public offering if the equity is below par value of shares issued. Therefore, it is reasonable to use a decision trees as a predictive modeling method.

**Samples**

*Sample 1*

The sample 1 consists of 144 public companies, which conducted public equity offering or private equity placement for an amount exceeding 25% of the share capital during 2011 and 2012. Companies are registered over the last 20 years. There are at least 100 shareholders in each company.

*Sample 2*

As of August 2013, fifteen Ukrainian agroholdings have listed their shares on foreign stock markets. They have listed the shares in Warsaw, London stock exchanges. These fifteen companies are an additional sample of issuers in this study.

**Variables**

**Capital concentration.** An indicator of capital concentration was defined as the proportion of the authorized capital stock that belongs to equity holders that own 10 per cent or more of issuer’s shares. An essential feature of Ukrainian public companies is extremely high concentration of capital in the hands of one or two shareholders. The significance of the capital concentration as a classification factor is determined by certain reasons of a legal nature and features of the undeveloped stock market. According to the Law of Ukraine "On Joint Stock Companies" [Verkhovna Rada 2008], a general meeting by a simple majority of the shareholders’ votes, except for some matters. These matters include, in particular, the equity issuance. In this case, the decision requires the votes of a three-fourths of voting shares that registered to participate in the general meeting of shareholders. Therefore, the corporate rights in PJSCs, where the total concentration of capital in the hands of large owners of more than 75% (that is where all minority shareholders together do not possess even a blocking stake) are not attractive for investors. Capital concentration is expressed in the form of interval and categorical predictors. We coded companies where a single shareholder owns less than 75% of shares as 1, if a shareholder owns more than 75% of shares as 2. The value of the categorical predictor (75%) specifies the percentage of shareholders’ votes needed for complete control of the company [Verkhovna Rada 2008].

**Equity capital to authorized capital ratio.** Equity capital to authorized capital ratio is the substitute for the book to market ratio, under conditions of Ukrainian stock market, because the stock's market value of the most Ukrainian
public companies is defined by experts, but not in the process of trading, as a rule at the level of face value. We coded equity capital to authorized capital ratio in the form of interval and categorical predictors, i.e. 1 if it is less than 100%, and 2 if it equals or more than 100%). The value of the categorical predictor of 100% means there is no information asymmetry.

**Return on equity (ROE)** in the form of interval and categorical predictors (i.e. 1 if it is less than 5%; and 2 if it is equal or more 5%). The selected values of the categorical predictor explained by economic stagnation in the analyzed period.

**Institutional investors.** By analogy with the criterion of capital concentration (10% and above of the authorized capital stock), we have defined also a substantial state involvement of institutional investors. Notably, according to the Ukrainian legislation, participation in a joint stock company is considered as essential not only when somebody owns (directly or indirectly, alone or jointly with others) 10 percent or more of the authorized capital stock or voting rights of the legal entity but also when somebody has (independent of formal ownership) an opportunity to influence considerably on the legal entity’s management or activities. However, the Public information database of the National Commission on Securities and Stock Market, which we used as the source of input data, does not provide the disclosure of the informal influence on corporate governance. A significant part of joint investment institutions (institutional investors) or the state has been defined as follows: yes=1, no=0 (categorical predictor);

**Sector of the economy** in the form of categorical predictor has been defined as follows: belonging to the non-financial sector = 1, belonging to the financial sector = 0. Dividends were coded in the form of a categorical predictor as follows: dividends were paid = 1, dividends were not paid = 0. In addition, we used three variables in the form of an interval predictor, i.e. share capital, equity, and net income. These predictors are selected for the following reasons. First of all, there is a need to determine whether the choice of equity private placement in an underdeveloped stock market depends on the same factors determined in previous studies (Hypothesis 1). Share capital and equity determine the scale of the business, ROE and net income describe the company’s financial performance. Equity capital to authorized capital ratio reflects with the above-mentioned provisos determine the degree of information asymmetry.

Concentration of capital, substantial part of the state and / or institutional investors in the authorized capital of the company and firm’s belonging to the banking or non-financial sector are included to predictors in order to test Hypothesis 2.

**Dividends** are included to predictors as a criterion of the firm’s financial results in accordance with the postulates of the signal theory, which, as stated above, has some links with arguments in favor of clientele effect and agency hypothesis.
FINDINGS

86.1% joint stock companies, included in sample 1, have selected private equity placement, in particular 87.5% - in the non-financial sector, whereas in countries with developed stock markets, almost half of the issues by public firms are the public offerings [Gomes and Phillips 2005]. The use of the above-mentioned algorithm allowed us to estimate the importance of factors which determine equity issuance type. In Table 1, the importance of variables on the 100-point scale is specified. The main factor was capital concentration. The analysis has revealed the importance of other factors of issuance policy such as equity capital to authorized capital ratio, economy sector and the availability of significant share of institutional investors or state in the authorized capital. The results of classification are shown in Figure 1 where each variable is defined on the 100-point scale. Thus, the study had not provided a direct support for the Hypothesis 1.

Table 1. The importance of variables on the 100-point scale

<table>
<thead>
<tr>
<th>Predictor importance</th>
<th>Variable Rank</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>The concentration of capital</td>
<td>100</td>
<td>1.000000</td>
</tr>
<tr>
<td>Equity to authorized capital ratio</td>
<td>87</td>
<td>0.869893</td>
</tr>
<tr>
<td>Sector of the economy</td>
<td>82</td>
<td>0.821060</td>
</tr>
<tr>
<td>Substantial part of the state and / or institutional investors in the authorized capital of the company</td>
<td>74</td>
<td>0.738207</td>
</tr>
</tbody>
</table>

Source: own elaboration

Taking into account the main factors, we have built the model for prediction of equity issuance. Classification type is based on 30 classification trees. Each tree
is based on a random sample generated from the original data set (Figure 2). The model correctly classified PJSCs choosing a private placement of shares in 86.29% of cases, and in 80% of cases for companies that preferred a public offering.

Figure 2. Generalized classification tree related to factors which determine equity issuance type

Source: own elaboration
The availability of equity capital to authorized capital ratio among the classification factors ratio is completely understandable given the legislative restrictions related to the right to increase the authorized capital by public offering if the equity is below par value of shares issued [Verkhovna Rada 2008].

Further analysis of input data identified an array of important features of Ukrainian corporations’ issuance policy, i.e. although there are no legal bans on public offering in cases where equity is numerically equal to or greater than its authorized capital, it is nevertheless less common than private placement (Figure 2). Thus, in terms of the current state of corporate relations in Ukraine, the dependence of the issuance type on their level of equity capital to authorized capital ratio is determined by legal factors to some extent, but not financial.

Results of the study proved the correctness of Hypothesis 2. All the investigated companies with the equity capital to authorized capital ratio of not less than 100%, the total concentration of capital in the hands of large owners at more than 75% in the absence of significant state involvement and/or institutional investors in the share capital (except one bank) carried out a private placement of shares. De facto the bank was not an exception because after public offering, the concentration of capital and controlling shareholders have not changed.

In the study, the categorical variable "substantial part of the state and/or institutional investors in the authorized capital of a company" was one of the most essential factors in choosing the type of equity issuance. As noted above, the significant ownership means 10 and more percent of the authorized capital. However, it is clear that a significant ownership of 10% and 25% of capital means a fundamentally different effect on the ability to determine the type of equity issuance at the general meeting of shareholders. The owner of 25% stake in the share capital, according to the Law of Ukraine "On Joint Stock Companies", has the right to block decisions on equity issuance [Verkhovna Rada, 2008]. For owners of smaller shares in the authorized capital, it is necessary to seek options for forming a blocking share package, together with other minority shareholders. This is not always possible. Only one corporation out of nine PJSCs, where state or institutional investors own the controlling or blocking stakes, chose a private placement of shares. Other eight PSJC s preferred public offering. As for the company, which was the only exception, it has certain characteristic that usually affects the formation of equity management strategies. It has a small share capital (UAH 12,177.9 thousand), average number of employees was not exceeding 50 persons and the financial loss was observed in recent years.

The model of equity issuance policy factors showed that a significant classification criterion for selecting the public offering is company’s belonging to the banking sector. Moreover, a certain regularity dividend policy is observed only among banks. How we can explain this? Based on the findings of previous research [Gomes and Phillips, 2005], we could explain this by the high capitalization of banks compared to non-financial enterprises. Indeed, all the banks in the sample of this study, except two banks, met the listing criteria related to net asset value in 2011
Moreover, based on the values of this index, 77% of banks were able to claim the first level listing of shares. Fundamentally different situation is observed in the non-financial sector (Figure 4). Out of the 216 public companies, the vast majority (82%) did not meet the criteria of the net assets in 2011. Only one tenth of the PJSCs related to this indicator to the first level listing.

![Figure 3. Distribution of banks by possible listing level based on the criteria of the net assets](image)

Source: own elaboration

![Figure 4. Distribution of PJSC in non-financial sector according to the possible listing level based on the criterion of the net assets](image)

Source: own elaboration

However, the capital of the joint stock company was not among the key factors that determine the choice between private equity placement and public offering for Ukrainian PJSCs. Therefore, it is likely that banks increasingly choose public offering and, therefore, pay more attention to dividend policy than companies in not
financial sector not only and not so much due to capital size. Sometimes, the reason is the growing regulatory and market requirements for bank capital growth that is one of the most important factors of banks competitiveness due to the nature of banks’ activities. In non-financial sector of the Ukrainian economy, the capitalization factor is inferior to the desire of owners to maintain a control over a joint stock company.

To assess the dividend policy of Ukrainian issuers, we used the same sample that we used to determine the factors that affect the equity issuance type. Out of the 144 public companies that are included in the sample, only five PJSCs (or 3.5% of the sample) paid dividends on ordinary shares. All of them were banks. Among enterprises in a non-financial sector, none of them paid dividends. This situation is only partly can be explained by financial reasons, because only ten PJSCs (out of 72) are in non-financial sector, i.e. 13.9%, had equity capital to authorized capital ratio less than 100%. The share of unprofitable enterprises was 50% both in 2010 and 2011. The share of banks in the sample with equity capital to authorized capital ratio less than 100% amounted 38.9%. However, only 22 banks reported profits in the financial statements in 2010 (30.6%) and 12 in 2011 (16.7%). Thus, even in the banking sector, the share of sustainable profitable PJSCs is greater than the proportion of companies that paid dividends on ordinary shares in 2010 - 2011. Thereby, Hypothesis 3 is supported.

In conditions of developed stock market, stable dividend payments to shareholders is a prerequisite for the success of public offerings. In this study, we found that among five PJSCs that paid dividends, two PJSCs conducted public offering. Consequently, there is no reason to talk about the significant relationship between corporate dividend policy and choice of an equity issuance type under conditions of Ukrainian economy nowadays.

Exploring the factors of dividend policy, we cannot ignore the impact of international stock markets on issuers. Accordingly, we analyzed reports of Ukrainian agricultural sector corporations that have undergone the IPO procedure on one of the foreign stock exchanges. Selecting this sector was not random. We have selected agroindustrial holdings because they constitute the overwhelming majority of Ukrainian issuers whose securities are traded on international stock markets.

As of August 2013, fifteen Ukrainian agroholdings have listed their shares on foreign stock markets. These fifteen companies are an additional sample of issuers in this study. Six of them, or 66.7%, paid dividends. Comparison of results for the second and first samples (66.7% vs. 3.4%) clearly demonstrates a fundamentally different approach to the distribution of net profits of Ukrainian companies in international stock markets. However, the fact of payment or non-payment of dividends is less important than the official declaration of the own dividend policy by majority of surveyed agricultural holdings in sample 2. This applies to issuers that distribute net profit for shareholders and those who reinvest it completely.
For example, Kernel Holding SA announced the application of the fixed dividends method in the amount of USD 0.25 starting from 2014 [Kernel 2015]. Avanguard Corporation has chosen a flexible method of dividend payments equal to 15 - 40% of net income, determined according to the annual consolidated financial statements. Dividend policy of Agroliga provides a complete accumulation of profit over four years to optimize development [Agroliga 2012]. Agrokultura AB, also refrains from paying dividends in the present stage of growth. The management of Agrokultura AB aims to direct at least 30% of net profit for dividends to shareholders in the future [Alpcot Agro 2013].

DISCUSSION

The findings regarding factors influencing the choice between public equity offerings and an equity private placement are different to some extent from those made in previous studies. The discrepancy has logical explanations in the peculiarities of the Ukrainian stock market and institutional environment. The most significant factor proved to be the capital concentration, which was expressed in the form of a categorical predictor (<75% and ≥75%). Cronqvist and Nilsson [2005] argue that family-controlled firms tend to avoid issue methods that dilute control benefits, even such as a private placement to a new investor. Schultz and Twite [2015] have found that firms with larger and more concentrated pre-issue monitor shareholdings are more likely to choose a private placement. Our findings are not in contrast to these assertions. Only an insignificant part of the companies in our sample with the concentration of capital in excess of 75% exercised a private equity placement. It is unlikely at such a high capital concentration to form a blocking stake through a process of public equity offering. In the absence of dividends that are paid very rarely and when the market value of shares is not rising, such companies are not attractive to investors. Furthermore, an extremely high concentration of the share capital in the hands of one or two shareholders over a long period of time could not be attributed to fortuitous circumstances. It is a consequence of realization of the major shareholders interests to preserve control over the company. Certainly, a public equity offering is not an appropriate instrument for achieving such a goal, especially when the majority shareholders face strong takeover pressure [Chen et al. 2016]. On the other hand, the companies where a significant ownership fraction belongs to institutional investors are guided, as a rule, by the goal of maximizing investments. Therefore, the concentration of share capital in the hands of institutional investors and public equity offering are positively related.

The previous studies provided an empirical evidence for the hypothesis related to the positive relationship between information asymmetry and equity private placement [Chen et al. 2002, Dewa and Izani 2010, Folta and Janney 2004, Goh et al. 1999]. Taking into account the specifics of the Ukrainian stock market, as a criterion of information asymmetry degree in this study the equity capital to authorized capital ratio was used instead the book to market ratio. In accordance with the
Ukrainian legislation, a joint stock company has no right on public equity offerings when equity capital to authorized capital ratio is below 100%. The equity private placement is permitted. Thus, it would not be correct even to consider the relationship between information asymmetry and probability of equity private placement under these circumstances.

This study has not confirmed nor disproved the hypothesis related to the positive relationship between the degree of information asymmetry and private equity placement. Other predictors appeared to be more important for classification purposes. This is associated with the specifics of the Ukrainian stock market and the institutional environment as a whole. The equity capital to authorized capital ratio does not enough reflect properly degree of information asymmetry. The market share value for the majority of corporations is determined not at the stock exchange, but on the basis of an expert assessment, which is not always objective. As a rule, the market share value is estimated at its face value. This corresponds to the interests of major shareholders, focused on maintaining a full control over the company and seeking to acquire shares in the process of their issuance at the lowest possible price. The point is that according to the Ukrainian legislation, equity issuance is carried out at the market rate, but not lower than the face value of a share.

Some studies demonstrate that the private equity placement is mainly typical among smaller firms [Dewa and Izani 2010, Gomez and Phillips’s 2005]. For Ukrainian market, it is confirmed only indirectly by the high capitalization of banks compared to non-financial enterprises as well as the positive relationship between such classification criterion as belonging to the banking sector of the economy and the public offering. However, this relationship is largely due to regulatory requirements with respect to increasing the capitalization of banks. The positive relationship between financial performance of a company and the public equity offering has also found only indirect confirmation for Ukrainian market through such classification factors as belonging to the banking sector of the economy and the equity capital to authorized capital ratio.

The study revealed that a situation with the payment of dividends in the corporate sector in Ukraine is quite indistinctive for more developed and emerging stock markets where payment of dividends is not an exclusion [Baker and Kapoor 2015, Forti and Schiozer 2015, Kadioglu et al. 2015, Manneh and Naser 2015, Yaseen et al. 2015] Is it possible to explain the mass abandonment of dividends payment with the help of modern theories of dividend policy, that were considered in the LITERATURE REVIEW section?.

In terms of the Ukrainian stock market, at the present stage of its development, minority shareholders often cannot exercise their right to change the object of financial investments, because the liquidity of small stakes is very low. In the first approximation, it is logical to assume that the majority shareholders, refusing to direct a portion of profits to dividends made a reasonable strategic choice in favor of theory of dividend policy irrelevance principles or they want to minimize dividend payments in accordance with the residual theory of dividends. However, the analysis
of these concepts’ nature and consequences of their use in modern conditions of the Ukrainian economy shows simplicity of this conclusion. The hypothesis related to the communication lack between the dividend policy and changes in the market value of the shares was formulated by Miller and Modigliani [1961] in a relation to an abstract business environment. This hypothesis does not deny the possibility of paying dividends to meet the interests of different groups of shareholders. The low level of dividends which suits investors with high incomes, who are interested in minimizing taxes, does not worsen capitalization of companies but does not contribute to its growth either. Even low dividends are not offered by companies oriented towards small scale investors.

Of course waiver of dividends payment may be due to the influence of classical dividend policy factors (i.e., stage of the firm’s life cycle, large-scale investment projects, low cost of debt capital, and legislative or contractual restrictions). However, the influence of these factors cannot explain the neglect of dividend payments by all investigated companies in the non-financial sector, especially given the stagnation of the Ukrainian economy, very high interest rates on bank loans and the composition of the sample (PJSCs that announced the additional equity issuance and should meet certain financial criteria and have to be attractive investments).

It seems convincing that the dividends are extremely low or not paid at all taking into account the progressive income tax rates as well as higher taxation rates related to distributed taxation than to capitalization. However, in such circumstances, issuers repurchase their shares from the owners at the request of the latter for higher prices. The issuers do this in order to meet the interests of shareholders in income derived from their financial investments. It should be noted that the companies rarely completely waive dividend payments for a specified compensation mechanism, because it can be interpreted by controlling authorities as a clear tax evasion [Brealey et al. 2008].

Ukraine's legislation does not provide tax preferences for the capitalization of profits or application of progressive tax scale. Thus, minimizing dividend payments can positively affect the revenue of potential shareholders only by a factor time of money value. Moreover, in conditions of almost total abandonment of dividends payment, the compensation mechanism in the form of share buyout by their issuers does not work, although it is regulated by the Law of Ukraine "On Joint Stock Companies" [Verkhovna Rada 2008]. Thus, the interests of minority shareholders are completely ignored. This reduces a social dimension of sustainable development. In the long term, this leads to the loss of significant potential financial revenues for corporate economic sector. The existing attitude of big business to the dividend policy has little to do even with the principles of the tax effect hypotheses.

Institutional investors (pension funds, insurance companies, and securities traders) prefer investing into shares of joint companies that pay dividends. This pattern occurs also in the Ukrainian stock market. Institutional investors attract
Emitters by broad financial capabilities and not competitive business interests. On the other hand, institutional investors carry out a systematic monitoring of financial condition of investees and keep under control the process of corporate governance to prevent decisions that could affect the financial results. Thus, from the signaling theory perspective, successful companies conduct a balanced dividend policy, through which a shareholder attracts institutional investors receiving specified benefits and providing better financial results.

It is worth to pay attention to the low share of institutional investors in the authorized capital of the companies in the Ukrainian stock market. In our sample, only 8.9% of PJSCs had institutional investors as shareholders. This fact limits the use of signaling theory for the dividend policy development. In addition, a very small proportion of PJSCs that passed listing procedure at stock exchanges. An obstacle is a discrepancy of financial performance to listing criteria. Finally, one of the most important factors that hampers implementation of the principles of the signalling theory into practice of corporate strategic management is a small portion of shares that are in a free float. The concentration of shares in the hands of owners of domestic PJSCs at 75% or more is typical (62% in our sample 1). This makes any signal to potential investors unperspective.

Summarizing the attempts to find theoretical justification of dominant practice for distribution of net profit by Ukrainian public joint stock companies, we are led to the conclusion that it cannot be fully explained by any known concept of the dividend policy designed for a certain level of stock market development. The consequences of the dividend policy observed in Ukraine are the displacement of small and medium-size investors from the immediate circle of corporate rights owners, increasing concentration of capital and reduced ability to attract financial resources in the equity issuance.

The common reason for rejection of developing and implementing a consistent dividend policy by the overwhelming majority of corporations is a very weak reaction of Ukrainian stock market to the facts of dividend payment. The stock market’s development is hampered not only by significantly unfavorable economic situation in the country over the recent years but also by the lack of incentives capable to overcome entrenched corporate strategy to have a surplus control package of shares. It would be too simple to explain such a dividend policy only by immaturity of corporate strategic vision. The Ukrainian holdings that made IPOs on the foreign stock exchanges show a fundamentally different approach in terms of strategy formation related to distribution of net profits. The problem can be solved by addressing relations between issuers of shares and the stock market.

**Implications for policy makers**

Our results are of interest to policymakers. Nowadays, the consequences of the equity issuance and corporate dividend policy in Ukraine are as follows: ousting of minority shareholders, an economically unjustified increase of the capital concentration and reducing the ability to attract financial resources through equity
offering. The participation of institutional investors in the share capital of Ukrainian public companies leads to a higher use of equity public offering, attracts minority shareholders and hence contributes to investments maximization. Thus, stimulating the development of joint investment institutions will boost investment processes in the country.

An unrepresentative listing of stock exchanges, an excessive concentration of capital, an insignificant free-flout and a very limited impact of joint investment institutions are factors that contribute to a very weak reaction of Ukrainian stock market on dividends. This is the main reason for the rejection of developing and implementing a consistent dividend policy by overwhelming majority of corporations. In the period of the stock market formation, it is important not only to create the foundation of evolutionary changes in the corporate dividend policy, but also ensure the protection of minority shareholders rights to receive income from the corporate ownership. In Ukraine, as in some other post-Soviet countries, minority shareholders are a large group of stakeholders that have appeared as a result of corporatization and privatization. Under certain conditions, it could be a powerful source of financial revenue to capital of issuers. But today, minority shareholders de facto represent a disadvantaged group, because they have virtually no right to receive annual income according to the real cost of equity. They are also usually not able to sell shares in the stock market due to illiquidity of small share packages. Apart from that, small shareholders’ shares loose their value during each additional issuance, which often occurs at the nominal rate that does not meet the real value of the stocks [Rohov 2008].

The evolutionary change in the corporate vision of emission and dividend policy can occur only in the institutional environment that is adequate to needs of a modern social-market economy. In theory, the stock market acquires maturity with the development of a market economy. However, this pattern is not realized automatically without profound social and economic changes aimed at deshadowing of economic relations, protecting shareholder’s rights, preventing corporate raidership and development of institutional environment. A reform of the stock market based on the administrative requirements and restrictions would not be effective a priori, because in the absence of economic interest it will contribute to further capital exports, shadowing of Ukrainian corporate sector and lowering an investment activity.

**Implications for practitioners**

The findings could be useful for investors working in the Ukrainian market, in particular the Social Investment Funds. As stated above, a very high concentration of capital distorts the corporate issuing policy, subordinating it to the goal of maintaining total control of the company's major shareholders. It causes the following consequences:

(a) low probability to increase in a tactical perspective the fraction of new investors (minority shareholders) in the share capital;
(b) very limited possibilities for ordinary shareholders to influence on corporate governance, in particular on dividend policy;
(c) underinvestment.

Under conditions of a high capital concentration, a public equity offering is unlikely, and an attraction of investment in the course of private placement is complicated. Over time, an underinvestment negatively affects the corporate financial performance and corporate social performance. The latter fact is important for the Social Investment Funds.

The study also revealed that in the banking sector of Ukrainian economy investors are more likely to expect a public equity offering and dividend payments. The declaration of a dividend policy at present state of the Ukrainian stock market is refusal of a specific catering, serving the majority shareholders. This is a positive signal for the Social Investment Fund, since the absence of dividends, in conditions of the high capital concentration, the large number of small shareholders who have acquired shares during privatization, and the slackness of the stock market usually means discrimination of minor shareholders.

The vast majority of Ukrainian joint-stock companies issue shares at the nominal rate, which does not meet the real value of the stocks. Therefore, shareholders who do not participate in the acquisition of shares in the process of additional issues bear financial loss. Investors that make decisions and consider corporate social responsibility of share issuers should pay attention to these circumstances. Thus, it is expedient for investors in the current conditions to take into account such criteria as the high concentration of capital, dividend policy and reasonableness of issue rate.

Limitations and avenues for further research

This study addresses the problem of determining factors that influence the corporate issuing and dividend policies. The findings of this research, in contrast to previous studies [Chen et al. 2002, Dewa and Izani 2010, Folta and Janney 2004, Gomes and Phillips 2005, Goh et al. 1999, Lee and Kocher 2001], relate the conditions of undeveloped Ukrainian stock market. Its peculiarities cause certain limitations of our study that provide opportunities for additional research attention.

Previous research provided empirical evidence that equity private placement is positively related to the level of firms information asymmetry (book to market ratio) and inversely related to the stock price run up-trend [Chen et al. 2002, Dewa and Izani 2010, Folta and Janney 2004, Goh et al. 1999]. As shares of the majority of Ukrainian joint-stock companies are not traded on the stock exchange, information relating to the stock price run up in the period preceding the equity issuance could not be obtained as well as data on book to market ratio. The study did not consider agency costs impact on the choice between public equity offerings and equity private placement too. It will be possible to examine the influence of these factors on the corporate issuing policy when the stock market becomes more representative.
Our study is limited by its focus on Ukrainian joint-stock companies that conducted public or private stock offering for an amount exceeding 25% of the share capital during 2011 and 2012. In a context of dividend policy, future research is warranted to explore the external validity of presented findings with regard to joint-stock companies that did not carry out the placement of shares during this period. The longitudinal studies need to address the transformations of corporate dividend and issuance policies in process of development the institutional environment. Presented results are generalizable to the context of Ukrainian stock market. To explore whether presented results are applicable to other national contexts, additional studies are also warranted. Future research might also apply other research methods rather than tree classifications, such as discrimination method1.

CONCLUSIONS

This study explored specificity of equity issuance and corporate dividend policy under conditions of undeveloped stock market, existing in Ukraine. We have sought to answer two research questions: "What is the pattern of equity issuance in the Ukrainian stock market?" and "Is a dividend policy of current interests for the Ukrainian corporate sector?". In relation to the first question, we found out that the most important factors influencing the choice between public equity offerings and equity private placement are the following: capital concentration, equity capital to authorized capital ratio, belonging to the banking sector of the economy and the availability of significant share of institutional investors or state in the authorized capital. It is worth noting that all most important factors are expressed in categorical predictors. These factors are different to some extent from those made in previous studies for developed markets [Chen et al. 2002, Gomes, Phillips 2005, Lee, Kocher 2001].

Related to the second question we explored situation with the payment of dividends in the Ukrainian corporate sector and corporate dividend policy of the Ukrainian holdings that made IPOs on the Warsaw or London stock exchanges. We found that the mass abandonment of dividends payment is very typical for the Ukrainian corporate sector. The dominant practice for distribution of net profit by Ukrainian public joint stock companies represents a kind of catering for one clientele namely very small group of major shareholders. However, the results of the study demonstrated a fundamentally different approach of Ukrainian companies to the dividend policy in international stock markets. Future studies can explore the impact of the institutional environment changes on equity placement and corporate dividend policy.

1 We are very thankful to the anonymous Reviewer for this suggestion.
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