Firm Characteristics and their Effects on Foreign Direct Investment Evidence from Romania, Republic of Moldova and Republic of Turkey

Doina Prodan Palade¹

Abstract: The purpose of this paper is to examine whether the firm accounting and financial performance ratios are reflected in the level of the Foreign Direct Investment and which one plays the most important role in attracting the foreign investors, the paper investigates the prior research works on this topic, underlining the influence of different factors on the level of Foreign Direct Investment. The sample is made of 25 randomly extracted firms listed on Bucharest Stock Exchange, for the fiscal year 2014. We constructed and tested a multiple linear regression model, using the level of Foreign Direct Investment as the dependent variable and 22 financial ratios, as independent variables, the authors found a positive effect of the financial ratios such as the net turnover to networking capital, equity multiplier, and net profitability ratio on the level of Foreign Direct Investment, the results of the research show that to enhance Foreign Direct Investment, corporations must improve their accounting and financial performance. The originality of this study results from the fact that it takes into consideration three different economic environments: Romania, Turkey and Moldova, respectively a European Union member country, a candidate to the European Union and a non-European Union country.

Keywords: foreign investors; accounting performance; financial performance; market value.

JEL Classification: M41; F21; G11

1. Introduction

Over the past decades, economic globalization has led to major changes in the world economy. A key element for economic development is the Foreign Direct Investment (FDI) and the most developing countries aim to attract investments from multinational enterprises. Growth in emerging countries is associated with a more open economy and a higher level of FDI. They serve as an engine of growth by supplying new capital, transferring technology and managerial know-how, marketing skills, organizational efficiency and focusing on profits. According to the National Bank of Romania, foreign direct investments are considered to be share capital and reserves due to a foreign investor who owns at least 10% of the

AUDŒ, Vol. 12, no. 4, pp. 119-133

¹ PhD in Economics, Alexandru Ioan Cuza University, Romania, Address: 11 Carol I Blvd., Iasi 700506, Romania, Corresponding author: doina_palade@yahoo.com.

vote or the subscribed share capital of a resident company's credits.

The paper is focused on three main parts. The introduction shows the importance, the topic, and the purpose of the research paper. The second part reviews the literature exploring the connections between financial performance and foreign ownership, and the influence of various factors like the firm value, firm size, and financial ratios upon the companies' ownership structure. The third part comprises our main findings, the empirical study, conclusions and future research.

2. Prior Work on FDI and its Main Determinants

The world economic system was restructured due to increased international capital flows following the foreign direct investment (FDI) and other forms of foreign investments and loans. Therefore, direct exports' sales are being replaced by foreign affiliates in host countries, leading to the replacement of international trade in foreign direct investment amount of international capital flows increased in the last three decades (Gurbuz & Aybars, 2010). The rapid expansion of FDI positively affects the performance of firms that have the internal resources and strong returns (Chang & Rhee, 2011). In the international flows of capital (which can take the forms of FDI, foreign portfolio investments and loans), direct exports are replaced gradually by the sales of foreign affiliates in the host countries, leading to the replacement of the international trade by FDI (Gurbuz & Aybars, 2010). Another role is played by the size of FDI convergence of domestic standards with the International Financial Reporting Standards. They increase firm value and promote FDI, reducing the costs of information processing for foreign investors. This effect consisting of reduced costs for information is stronger in partner countries whose accounting system show larger differences pre-convergence because they amplify the role of a convergence facilitator of accounting standard for FDI (Ding et al., 2011). When companies are expanding, managers should take into account the uncertainty of the market and competitive pressures they provide by the new market (Chang & Rhee, 2011). The prior research demonstrates that FDI improves firm financial performance up to a certain level, beyond which the foreign ownership does not enhance the firm profitability. For firms in a highly globalized industry, slow FDI expansion can pose a greater threat than rapid FDI expansion, because it does not allow firms to tap global scale economies (Chang & Rhee, 2011). Firm performance is traditionally analyzed relative to other firms in the same industry. The accounting earnings, like the return on total assets (ROA) and Earnings Before Interest and Taxes adjusted for total Assets, Earnings Before Interest and Taxes (EBIT), and market measures like return on market value of equity (ROE) and return on common stock adjusted for market return (STKRET) can be used for measuring the firms' financial performance (Furtado & Karan, 1994). Firm performance can be measured using ROE (Return on Equity) and PM

(Profit Margin) (Yasser et al., 2011). Industry and size adjusted Chief Executive Officers (CEO) pay is negatively related to future shareholder's wealth changes for periods up to five years after sorting on pay (Cooper et al., 2013). A firm's ability to introduce new products may be hampered because of the need to clear the distribution channel of excess inventory (Singhal, 2005). Gurbuz and Aybars performed an empirical analysis on 205 non-financial companies listed on ISE, covering the period from 2005-2007, to examine the effect of FDI on the firm performance. They concluded that minority foreign ownership (up to 50%) improves performance in terms of ROA (Return on Assets) and major foreign owned firms (over 50%) display worse performance than the minority foreign owned and domestic firms (Gurbuz & Aybars, 2010). The results are robust to the findings of previous works. Based on quarterly institutional holdings data from the first quarter of 1980 to the fourth quarter of 2011 from the Thomson-Reuters Institutional Holdings (13F) Database, Switzer and Wang found that the concentrated ownership has a negative impact on firm's credit risk and bondholder wealth, being positively related to firms' credit risk. At the same time, investors with large stock ownership, have both the incentives and the ability to play an active role in monitoring, information-gathering, and intervening in portfolio investment policies and capital structure decisions. They can play an important monitoring and informational role to reduce managerial opportunistic behaviour and agency conflicts between management and shareholders (Switzer & Wang, 2013).

Other indicators that may have a significant influence upon the level of FDI are: the operating performance, the capital structure, firm size and ownership characteristics, and the less wealthy investors. Firm size and ownership characteristics are significant in keeping the share price stable and increasing over the time period. Economic value added (EVA) is a good predictor for abnormal returns (Basar & Tosunoglu, 2006). Kahle and Kuldeep suggest that capital structure may be related to the debt-equity choice made by firms, size, profitability, growth, collateral value of assets, non-debt tax shields from operations, and uniqueness (Kahle & Kuldeep, 2005). Using a sample of 56 firms listed on Colombo Stock Exchange and covering the period of 2006–2009, Munasinge & Fernando found that less wealthy investors have a significant influence in keeping the share prices and firm size stable (Munasinge & Fernando, 2011).

3. FDI Confidence Index

FDI Confidence Index shows how changes in countries' political and economic systems can affect the FDI inflows. The top 25 of the Index in 2015 is dominated by Europe. Membership of the European Union (EU) is vital not only for accessing to the single market of the EU, but also having access to the structural funds of

Europe, not forgetting economic growth and political stability (Basar & Tosunoglu, 2006). The United States is ranked 1st, followed by China and the United Kingdom. This means that the corporations are most likely to invest in these countries. From among the countries which were taken into consideration in this research paper, Romania, Republic of Moldova and Turkey, only Turkey is included in this top 25 for the year 2014. Turkey moved up to 22nd from the 24th place in 2014. As for the year 2016, Turkey together with Finland and Poland do not appear in the Index.

4. The Dynamics of FDI in Romania, Moldova and Turkey between 1998–2014

According to the United Nations Conference on Trade and Development (UNCTAD), for the three countries analysed in this research paper, the level of inward and outward FDI inflows in Turkey has a higher level than in Romania and Moldova (see Figure 1 and Figure 2), the highest level of FDI inflows being registered in Turkey during 2006 with an amount of \$22,047.00 million (UNCTAD, World Investment Report, 2014). In 2014, the level of FDI in Turkey was at \$12,146.00 million, meaning 0.989 percentage of total world FDI.

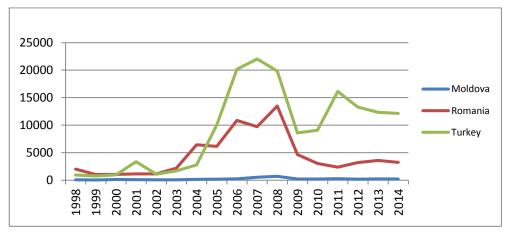
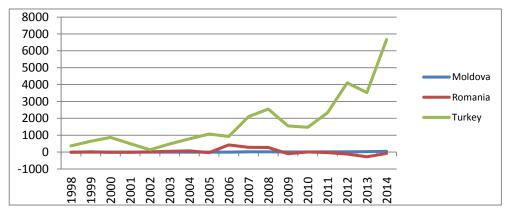


Figure 1. Inward FDI inflows in Romania, Republic of Moldova and Turkey, 1998-2014

Source: UNCTAD. World Investment Report. Web page. Retrieved from http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf

Measure: US Dollars at current prices and current exchange rates in millions

For the period 1998–2014, both Romania and Moldova registered the highest level of FDI in 2008, with the amount of \$13,491.54 million USD in Romania and \$711.46 million USD for Moldova. During 2014 the level of FDI in Moldova was



of \$207.39 million USD, 12.23% down from 2013.

Figure 2. Outward FDI inflows in Romania, Republic of Moldova and Turkey, 1998–2014

Source: UNCTAD. World Investment Report. Web page. Retrieved from http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf

Measure: US Dollars at current prices and current exchange rates in millions

4.1. FDI in Romania

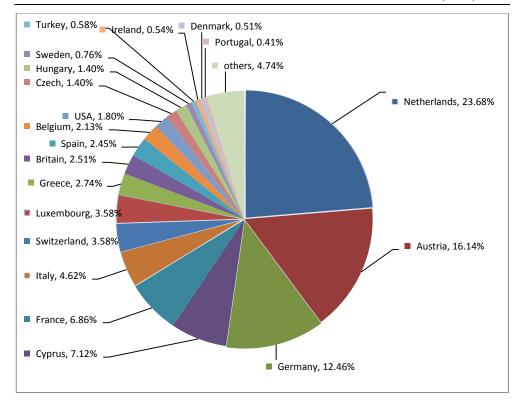


Figure 3. Foreign Direct Investments in Romania 2014, by country (% of total FDI flow)

Source: the National Bank of Romania (BNR), Retrieved from www.bnr.ro accessed on June 2016

Due to the repayment loans, the net credit of FDI enterprises loans from their FDI investors was negative and stood at -€425 million. The primarily net flow came from manufacturing and in 2014 its amount was of €929 million. The first four countries by the share of total FDI in Romania on 31 December 2014 are:

- Netherlands (23.68%);
- Austria (16.14%);
- Germany (12.46%);
- Cyprus (7.12%).

It is noted that the Netherlands is ranked first in terms of FDI in Romania, Moldova and Turkey. Also, Germany is found in the first four largest foreign investors in Romania and Moldova.

4.2. FDI in Turkey

The first four countries by the share of total FDI in Turkey (see Figure 4) on 31 December 2014 are:

- Netherlands (23.54%);
- United Kingdom (12.26%)
- Azerbaijan (10.31%)
- Russia (8.43%)

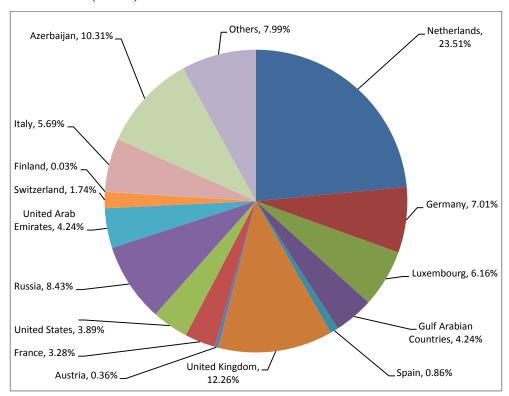


Figure 4. Foreign Direct Investments in Turkey 2014, by country (% of total FDI flow)

Source: the Central Bank of the Republic of Turkey, retrieved from http://www.tcmb.gov.tr/yeni/eng/accessed on June 2016

Turkey is placed between Europe and Asia, being a bridge between the two continents. Its geographical location, the positioning advantage at the intersection of many trade routes and the extensive infrastructure of ports and railways accelerate the level of its international trading. Due to the size of its economy,

Turkey plays an important role among the developing countries. Over the last decade Turkey has undergone a deep economic transformation, becoming the 6th largest economy in Europe (Investment Support and Promotion Agency of Turkey, 2014). OECD projects a growth rate of 3.8% in 2014 and 4.1% in 2015 for GDP in Turkey.

The European Community (EC) - Turkey Customs Union and Euro-Mediterranean Partnership (EUROMED) trading partnerships have led to a rapid progress of its international trade volume and FDI. According to Ministry of Economy from the Republic of Turkey, the main objective of FDI law in Turkey is to protect the rights of the foreign investors. They are encouraged to make direct investments in Turkey and they receive equal treatment with the domestic investors. As for 2013, Turkey had free trade agreements (FTAs) with 31 countries and meanwhile there are 14 countries/country blocs that Turkey has started FTA negotiations with. In 2013, Turkey was the 8th largest recipient of FDI jobs in Europe. In the top 15 countries by FDI projects, during 2013, Turkey is ranked 11, having a successful year, with 98 projects started, representing an increase by 3% from 2012, including mainly manufacturing projects in the automotive sector (EY's attractiveness survey Europe 2014. Back in the game, 2014). The 2014 Foreign Direct Investments Evaluation Report from YASED, International Investors Association showed that during that period, the total gross capital inflows of \$10,189 million were distributed among the sectors, as follows: 52.4% services, 47.2% industrial and 0.4% agricultural. Similar to previous periods, the Eurozone had the most active foreign investors, with 49 deals. At the top of the list were Netherlands, Germany, and Luxemburg (see Figure 4).

4.3. FDI in Moldova

For the 2014 period, the main investors in Moldova are (see Figure 5):

- Russian Federation (25.8%)
- Netherlands (11.51%)
- Cyprus (8.70%)
- France (7.77%)

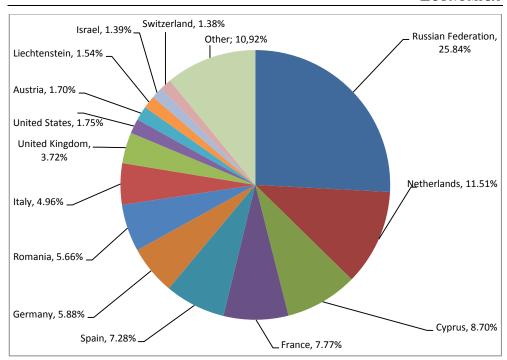


Figure 5. Foreign Direct Investments in Moldova 2013, by country (million \$)

Source: the National Bank of Moldavia (BNM)

The process of privatization which took place in the South-Eastern Europe was faster than in Moldova, attracting higher levels of FDI. Due to the long period of transition from the communist system to the free market that took place in Moldova ranked it among the last European countries for FDI. Regarding the dynamics of FDI in Republic of Moldova, we can say that since 2005 they have had a positive trend, mainly due to increased FDI flows from the European Union to the Republic of Moldova, as a consequence of improving the country rating and economic performance (Ulian & Turliuc, 2014). Two thirds of the foreign capital present in the Republic of Moldova is invested in joint venture companies, while the rest belongs to companies in foreign ownership.

According to the 2014 Investment Climate Statement, Moldova continued to take steps toward developing a stronger economy, by reforming its regulatory framework, combating corruption and trying to improve the business climate. Moldova, ranked as one of the poorest countries in Europe, must rely on FDI for economic growth. The country profited from increased inflows of foreign direct investment (FDI) with eastward expansion of the EU, which became the country's immediate neighbour following Romania's accession to the EU on January 1, 2007.

6. Research Methodology

The sample is made of 25 firms listed on Bucharest Stock Exchange for the fiscal year 2014. In order to test the relationships between the FDI and the financial performance indicators of the firms, we use a linear regression model showed in the following equation:

$$y = \alpha + \beta_1 R_1 + \beta_2 R_2 + \beta_3 R_3 + \beta_4 R_4 + \beta_5 R_5 + \beta_6 R_6 + \beta_7 R_7 + \beta_8 R_8 + \beta_9 R_9 + \beta_{10} R_{10} + \beta_{11} R_{11} + \beta_{12} R_{12} + \beta_{13} R_{13} + \beta_{14} R_{14} + \beta_{15} R_{15} + \beta_{16} R_{16} + \beta_{17} R_{17} + \beta_{18} R_{18} + \beta_{19} R_{19} + \beta_{20} R_{20} + \beta_{21} R_{21} + \beta_{22} R_{22}$$

Where:

- Y is the dependent variable representing the level of FDI (as percentage of total shareholders' equity)
- α is the random variable error (residue)
- R_i , $i = \overline{1,22}$ are the financial statement ratios (see table 1), for the fiscal year 2014.

This model relates the level of foreign equity of the firms to their financial performance ratios.

Table 1. Financial statement ratios

Category	Code	Financial variables (%)		
Asset/active balance sheet	R1	Fixed assets ratio = fixed assets/total assets		
structure analysis	R2	Tangible assets ratio = tangible assets/total assets		
	R3	Current assets ratio = current assets/total assets		
	R4	Inventory ratio = inventory/total assets		
Passive balance sheet	R5	Current resources ratio = short term liabilities/total		
structure analysis		passive		
	R6	Overall debt ratio = total liabilities/total passive		
	R7	Overall financial autonomy ratio = shareholders'		
		equity/total passive		
Liquidity measuring ratios	R8	Current ratio = current assets/current liabilities		
	R9	Acid test ratio or Quick ratio = (current assets –		
		inventory)/current liabilities		
	R10	Cash flow ratio = net cash flow/current liabilities		
	R11	Net turnover to networking capital = Net		
		turnover/networking capital		
	R12	Networking capital to total assets = Networking		
		capital/total assets		
Solvability measuring	R13	Overall solvability = total assets/total liabilities		
ratios	R14	Financial leverage or overall debt ratio = total		
		debts/shareholders' equity		

	R15	Long term debt ratio = long term liabilities/ shareholders' equity		
	R16	Equity multiplier = total assets/ shareholders' equity		
Profitability ratios	R17	Net profitability ratio = after-tax profit/net turnover		
	R18	Return on assets (ROA) = net income + interest		
		expense(1-tax rate)/average total assets		
	R19	Return on equity (ROE) =net income/total assets		
Price to book ratio	R20	P/BV = price/book value		
Intern sales ratio	R21	Domestic sales/total sales		
Exports ratio	R22	exports/total sales		

Source: (Mironiuc, 2013)

6.2. The Sample

The sample used in this empirical study is made of 25 companies listed on Bucharest Stock Exchange (BSE) in the year 2014, for which the financial statements and the annual reports were available on the BSE online database.

6.3. Results

Model Summary (see table 2) displays the correlation coefficient R square and the adjusted R square between the dependent variable Y and the independent variables that were included in our tests. R square and the adjusted R square can take values between -1 and 1. In our case, R is equal to 0.713 and R square is 0.509, showing that between the dependent variable and the independent variables there is a linear strong correlation.

Table 2. Model Summary^b

Model	R	R Square	Adjusted R	Std. Error of			
			Square	the Estimate			
1	.713ª	.509	-1.359	45.32676			
a. Predictors: (Constant), R22, R13, R19, R11, R4, R17, R18, R10, R15, R21, R3, R5, R2, R14, R9, R8, R7, R6, R16							
b. Dependent Variable: Y							

Source: SPSS

Model

Beta In t Sig. Partial Collinearity
Correlation Statistics

Table 3. Excluded Variables^a

					Correlation	Statistics
						Tolerance
1	R1	, b	•			.000
		,				
	R12	, b			•	.000
	R21	-	-	.208	600	2.456E-11
		84843.385 ^b	1.499			

a. Dependent Variable: Y

b. Predictors in the Model: (Constant), R22, R13, R19, R11, R4, R17, R18, R10, R15, PBVR21, R3, R5, R2, R14, R9, R8, R7, R6, R16

Source: SPSS

Applying statistical tests by using Enter method, three variables were excluded from the model, respectively R1, R12 and R21, showing that they don't explain the level of Y (see Table 3). The estimated equation of multiple linear regression model is as follows:

```
\begin{array}{l} y = -26.76 \, + \, 94.278R_2 + \, 12.855R_3 + \, 177.284R_4 - 86.391R_5 - 75.810R_6 \\ - \, 225.067R_7 + \, 4.241R_8 + \, 34.596R_9 + \, 1.195R_{10} + \, 1.892R_{11} \\ - \, 22.660R_{13} - 197.424R_{14} + \, -1.676R_{15} + \, 182.449R_{16} \\ + \, 2.132R_{17} + \, 447.353R_{18} - 143.990R_{19} + \, 5.739R_{20} \\ + \, 175R_{22} \end{array}
```

The positive values of the coefficients show a direct correlation between those financial ratios and the level of FDI, such as the tangible assets ratio, current assets ratio, inventory ratio, current ratio, acid test ratio, cash flow ratio, net turnover to networking capital, equity multiplier, net profitability ratio, return on assets ratio, price per book value ratio and the level of exports as percent of total sales. The coefficient β_{14} is -197.424 meaning that the dependent variable decreases by 1% if the financial leverage increases by 1%, while the other variables remain unchanged. Figure 6 and Figure 7 show a normal distribution of the errors for the tested regression model.

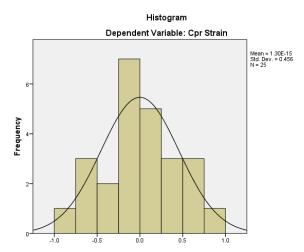


Figure 6. Regression Standardized Residual

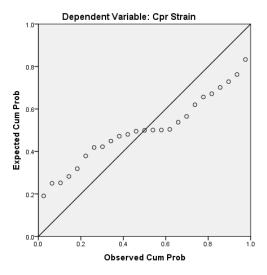


Figure 7. Normal P-P Plot of Regression Standardized Residual

Source: SPSS

The proposed model is validated by the empirical results and it shows a direct correlation between the financial performance ratios and the level of FDI for the analyzed sample. The fixed asset ratio, networking capital to total assets ratio and the ratio of domestic sales have no influence on the level of FDI and were excluded from the regression model.

7. Conclusions and Future Work

We conclude that FDI is one of the main channels for bringing advanced technology to the developing countries. It facilitates the transfer of technology and know-how with positive impact for the whole economy. The technological effect of FDI is country-specific and its impact can differ, depending on the type of activity, the sector, the research and development activity and the level of labour force skills. Regarding the effects of FDI on productivity, no consensus has been reached in spite of the amount of empirical work. The prior work shows the positive impact on firms' productivity, while few works show the negative impact of FDI on domestic owned firms' productivity (Filiz, 2014). The presence of foreign ownership up to a certain level in the ownership structure improves the firm financial performance. Numerous studies investigated the relationship between FDI and firm performance, but there is no consensus. The results of the empirical study show that the most financial performance ratios are significant in attracting a highlevel foreign ownership. As for Romania, Turkey and Moldova, the most active foreign investors come from the Eurozone. Among the main investor countries we found Netherlands, Germany, Austria, Cyprus and France. This paper adds new empirical evidence to the work that addressed the connection between FDI and firm performance and it provides new empirical results showing that performing companies are more likely to attract the foreign investors. Future research should aim to study the specific determinants of FDI, such as the cultural distance factors, parent-country GDP per capita, corporate governance indices, and regional trade agreements.

8. References

Bacidore, J.M.; Boquist, J.A.; Milbourn, T.T. & Thakor, A.V. (1997). The Search for the Best Financial Performance Measure. *Financial Analysts Journal*, May-June 1997, pp. 11-21.

Basar, M. & Tosunoglu, S. (2006). Eu Integration Process: Will Turkey Overcome the FDI Obstacles?. *Managing Global Transitions*, 4(2), pp. 115–128.

Chang, S. & Rhee, J.H. (2011). Rapid FDI expansion and firm performance. *Journal of International Business Studies*, 42(8), pp. 979-994.

Cooper, M.J.; Gulen, H. & Rau, P.R. (2013). *Performance for pay? The relationship between CEO incentive compensation and future stock price performance*, pp. 1-49. Available at SSRN: http://ssrn.com/abstract=1572085 or http://dx.doi.org/10.2139/ssrn.1572085.

Ding, Y.; Chen, C.J.P. & Xu, B. (2011). Convergence of accounting standards and foreign direct investment. Rochester: *Social Science Research Network*.

Filiz, K. (2014). FDI and total factor productivity relations: An empirical analysis for BRIC and Turkey. *Advances in Management*, 7(3), pp. 23-27.

Furtado, E.P.H. & Karan, V. (1994). Internal/external top management succession and firm performance. *Journal of Financial And Strategic Decisions*, 7(1), pp. 1-14.

Gurbuz, A.O. & Aybars, A. (2010). The impact of foreign ownership on firm performance, evidence from an emerging market. *American Journal of Economics and Business Administration*, 2(4), pp. 350-359. Turkey.

Kahle, K.M. & Kuldeep, S. (2005). Firm Performance, Capital Structure, and the Tax Benefits of Employee Stock Options. *Journal of Financial and Quantitative Analysis*, 40, pp. 135-160.

Mironiuc, M. & Pop, F. (2013). *Analiza economico-financiară/The Financial and economic analysis*. Cluj-Napoca: Editura Risoprint.

Munasinghe, M.A.T.K. & Fernando, J.M.R. (2011). Firm characteristics and their effects on share price movements: Evidence from Sri Lanka. *GSTF Business Review (GBR)*, 1(1), pp. 227-231.

Singhal, V.R. (2005). Excess Inventory and Long-Term Stock Price Performance. Working paper, Georgia Institute of Technology. Atlanta, GA.

Switzer, L.N. & Wang, J. (2013). Institutional Investment Horizon, the Information Environment and Firm Credit Risk. *World Finance Confrence, Cyprus*.

Ulian, G.; Turliuc, G.D. & Popovici, A.N. (2014). Foreign direct investment- a key driver for growth and prosperity in romania and the republic of moldova. *The International Conference Monetary, Banking and Financial Issues in Central and Eastern EU Member Countries: How Can Central and Eastern EU Member Overcome the Current Economic Crisis?* April 10-12. Iasi.

Yasser, Q.R.; Entebang, H. & Mansor, S.A. (2011). Corporate governance and firm performance in Pakistan: The case of Karachi Stock Exchange (KSE)-30. *Journal of Economics and International Finance* 3(8), pp. 482-491.

***(2013) *Investment Climate Statement – Moldova. US Department of State.* Web page. Retrieved from http://www.state.gov/e/eb/rls/othr/ics/2013/204695.htm.

***(2014) Foreign Direct Investments Evaluation Report. 2013-Year End. YASED, International Investors Association.

***(2016) *ATKearney FDIConfidence Index*®. Web page. Retrieved from https://www.atkearney.com/gbpc/foreign-direct-investment-confidence-index.

***(2014). Investment Support and Promotion Agency of Turkey. Web page. Retrieved from http://www.invest.gov.tr.

***(2014). National Bank of Romania. Web page. Retrived from http://www.bnr.ro.

***(2003). Republic of Turkey, Ministry of Economy. Web page. Retrieved from http://www.economy.gov.tr/.

*** The Financial Express, 2013. Web page. Retrieved from http://epaper.financialexpress.com/

*** UNCTAD. World Investment Report. Web page. Retrieved from http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf.

***(2014). EY's attractiveness survey Europe. Back in the game. *Web page*. Retrieved from http://www.ey.com/.../EY-2014-european-attractiveness-survey/.../EY-2014-eu.

*** UnData, (2012). Romania. Country profile. Web page. Retrieved from http://data.un.org/.

***(2015) Index of Economic Freedom. *Web page*. Retrieved from http://www.heritage.org/index/ranking.

***(2014). Investment Climate Statement. (2014). Web page. Retrieved from http://www.state.gov/e/eb/rls/othr/ics/2013/204719.htm.