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A COMPARATIVE STUDY FOR OPPORTUNITY COST OF HOLDING MONEY BETWEEN SELECTED DEVELOPING AND DEVELOPED COUNTRIES

Zahra Rouhani[1],
Mehdi Behname[2],
Sayed Mahdi Mostafavi[3]

Abstract

This paper searches an appropriate proxy for opportunity cost of holding money. We apply a balance panel data for selected developed and developing countries during the period of 1990-2008. Three models have been estimated for each group of the countries. Both random and fixed effect models have been applied. The results show that inflation rate is a good proxy for opportunity cost of holding money in the developing countries. This fact is probably the caused of inefficiency in financial markets. However, for developed countries both inflation rate and interest rate should apply as opportunity cost of holding money. When interest rate is a good proxy for opportunity cost of holding money and bonds, we can conclude that there is a competitive market in the financial market. On the other hand, we can consider the inflation rate as a proxy for durable goods and foreign currency.

JEL classification: E41, E58

Keywords: Demand for money; Opportunity cost of holding money; Financial markets; panel data

1. Introduction

The demand for money is a basic concept in macroeconomics. This considers the tendency of people for maintaining money. The demand for money function indicates the variables that affect on the demand for money such as interest rate, income, wealth and so on. Macroeconomic analysis show that certain demand for money characteristics could influence monetary policies such as the interest elasticity of the demand for money and the stability of the demand for money Hosseini and Bakhshi (2006). Hence, many researches in this domain in confident countries have

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been done. Since, this fact affects monetary policies then we need to understand of the detail of the demand for money.

In macroeconomics literature the demand for money focuses on two subjects: speculative demand and opportunity cost of holding money. Usually, opportunity cost is more important. Mostafavi and Yavari (2005). The aim of this paper is to find a good proxy for opportunity cost of holding money. The researches in this way show that a good variable for opportunity cost of holding money depends on financial market development. The structure of financial market in the developed and the developing countries is different for this reason we search the proxies according to these countries. We apply three models for two type's countries: a model by interest rate, other model by inflation rate and anther model by both variables.

In this domain have been applied many works particularly in developed countries. In general these studies have focused on the determinants of the demand for money and the stability of the demand for money. Pardhan and Subramaniam (2003) have considered the reforms in financial market in India and have shown that deregulation and reform in financial market affect the stability of the demand of money. Budina et al (2006) indicate that in Romania a good proxy for opportunity cost of holding money is inflation rate, because financial markets in this country are inefficiency. The results show that in Romania inflation rate is a monetary phenomenon. Samimi and Elmi (2006) show that a good proxy for opportunity cost of holding money is inflation rate in Iran. They represent different reasons: inefficiency in financial market, determination of interest rate by policymakers and fixation of interest rate. Bahramshah et al (2009) revealed that stock price has a considerable substitution effect on the demand for money in long run.

2. The theoretical basis in the demand for money

The main question is: why people prefer to hold money rather than other assets? The first theory on money is quantity theory of money that is presented by Fischer. Fischer in his equation has studied the speed of money. The Cambridge economists focus on the main role of money namely the preservation of value. Cambridge monetarists consider the volume of money as a function of income level. Marshall (1926) and Pigou (1917) mention the motivation of holding money. They believe that currency has international acceptability. Hence they have introduced the interest rate and wealth in the demand for money function. Keynes believes that the demand for money has three motivations: transaction, precautionary and speculative. Branson (1979) says "speculative demand component inversely related to the interest rate and transactions demand positively related to income and inversely related to the interest rate. As a results the suggests the following formula:

$$\frac{M}{P} = m = m(r, y) \approx l(r) + k(y)$$

where $\frac{M}{P}$ is real demand for money *r* stands for interest rate and y shows real income. $\frac{\partial m}{\partial r}$ is negative and $\frac{\partial m}{\partial y}$ is positive".

Consumers and producers in their beehives consider the real interest rate (r- $\dot{P}$) instead of nominal interest rate. In this way the inflation rate introduces in the demand function for money. The change in price level affect on purchasing power of money namely increasing price level decrease purchasing power of money "so that an increase in the expected rate of inflation should cause a shift out of money and bonds and into consumer durables" Branson (1979). The rate of inflation is the rate of return on speculative demand for money. Hence we can denote the demand for money as the following:

$$\frac{M}{P} = m = m(y, r, \dot{p})$$

where $\dot{P}$ usually considers for the proportional rate of change of prices. By increasing real income causes increase the demand for money and also increasing *r* and $\dot{P}$ decrease the demand for money Branson (1979).

Friedman argues that money is as a consumable good for consumers. Likewise, the demand for a good depends on total income, price of good, price of substitute good , taste and so on, the demand for money also depends on wealth, the rate of return for money, price and return of other goods, preference and taste of consumers. Friedman considers some variables in the demand for money namly: permanent income, current income and wealth.

Usually, in the developing countries, inflation rate stands for opportunity cost rather than interest rate. Because of different reasons: 1) in developing countries financial markets aren't developed 2) in these countries the interest rate is fixed and determined by the central bank. Johnston (1984) says that increasing price level raises government expenditures then GDP would increase and as a result the demand for money would increase. Johnston (1984) concludes that if expenditure changes are more than income, then output and the demand for money would increase.

3. Methodology

In order to estimate the parameters of demand for money we introduce three models as the following:

$$Ln(M_t)\text{-}Ln(P_t)=\alpha_{0+}\alpha_1 Ln(RGDP)_t+\alpha_2(INF)_t+U_t \quad (I)$$

$$Ln(M_t)\text{-}Ln(P_t)=\alpha_{0+}\alpha_1 Ln(RGDP)_t+\alpha_2 LnR_t+U_t \quad (II)$$

$$Ln(M_t)-Ln(P_t)=\alpha_{0+}\alpha_1 Ln(RGDP)_t+\alpha_2 LnR_t+\alpha_3 Ln(INF)_t+U_t \quad (III)$$

where M stands for nominal money (namely M_1), P represents the consumer price index, RGDP is real gross domestic product, R shows interest rate, INF stands for inflation rate. All variables have calculated as their logarithm value expect inflation. Correspond of other works we apply the variables on logarithm.

Dependent variable

In this research the dependent variable is money. For money we chose M1, as this variable has been applied in the many studies. For the normalization of M1 in the different countries we divide M1 on the consumer price index.

Income

In the demand for money income, wealth, expected income and expenditure gross national stand for a proxy as scale variable. Some economists such as Freidman believe that the wealth is more than permanent income and permanent income is more than current income. (Haris 1985). Since the calculation of wealth is difficult we would replace GDP instead of it.

Opportunity cost of holding money

We show usually the opportunity cost of holding money by three variables: rate of return of money, inflation rate and return rate of financial assets. In this paper we have applied inflation rate and interest rate as opportunity cost of holding money:

$$(M/P)=f(y, inf, ir)$$

The source of variables are WDI(2009) and IFS. We divided the countries in two groups: developing countries and developed countries. Developing countries are Iran, Egypt, Tunisia, Honduras, Brazil, Ocarina, Namibia, and Fuji. Developed countries are Canada, Denmark, Malta, Sowed, Holland, Japan, USA and Australia.

Model

The recent authors in this topic have focused on time series models. But panel data model has many advantages in comparison to time series and cross sectional data. Therefore in this paper we apply panel data model. In this methodology there are some models: pooled regression, fixed effects, random effects and seemingly unrelated regression model.

In pooled data model we should say that there is not any difference between the intercept and slop coefficient in the regressions. Therefore we stack the data and apply OLS. Such as alternative we can apply panel data model in which there is the difference between intercept in the regressions. In fixed effect models the intercept

between the individual is difference and in random effects model this intercept is random.

F has carried out test for choosing panel data model and pooled regression. If we reject H_0 we can conclude that the characteristics of countries are difference and we should apply panel data model. Anther test is Hausman (1978) test that we apply for differentiation between fixed effects model and random effects model. If we reject H_0 we should apply fixed effects model.

4. Results

We estimate three models of demand for money for two groups of countries. We consider the effect of inflation and interest rate separately and together. We have estimated different models during the period of 1990-2008.

Table 1. Estimation of the first model (by inflation rate)

variables	Pooled regression	Fixed effects	Random effects
Intercept	-0.3496 (-0.21)	-2.983 (-1.11)	-3.8225 (-1.32)
Log(GDP)	0.8364*** (13.48)	0.9352*** (9.111)	0.9839*** (9.12)
Log (INF)	-0.4003** (-2.43)	-0.123** (-2.67)	-0.225*** (-3.13)
R^2	0.984	0.984	0.56
F	4602.75	85332.58	94.71

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant in 10%, 5% and 1% level of confidence respectively

Table 2. Estimation of the second model (by interest rate)

variables	Pooled regression	Fixed effects	Random effects
intercept	-2.675 (-1.49)	1.493 (0.62)	0.768 (0.26)
Log (GDP)	0.95*** (14.38)	0.778*** (8.57)	0.810*** (7.46)
Log (I)	-0.868*** (-8.11)	-0.1766*** (-7.94)	-0.217*** (-5.79)
R^2	0.993	0.99	0.494
F	1225.97	234974.2	76.4194

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant respectively in 10%, 5% and 1% level

Table 3. Estimation of the third model (by interest rate and inflation rate)

variables	Pooled regression	Fixed effects	Random effects
intercept	-0.852 (-0.54)	3.806 (1.58)	0.555 (0.19)
Log (GDP)	0.853*** (14.49)	0.678*** (7.42)	0.821*** (7.71)
Log (I)	-0.251** (-2.12)	-0.171** (-2.37)	-0.231*** (-4.28)
Log (INF)	-0.202 (-1.08)	-0.08** (-2.37)	-0.074 (-0.99)
R^2	0.988	0.99	0.66
F	3922.	188203.6	90.61

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant respectively in 10%, 5% and 1% level

Now we should chose most appropriate model among these three results. The F test shows the difference or indifference between individual effects. We have calculated the F test for three models. The results show that H_0 hypothesis reject and this means that there is a significant difference between the individual of models. The Hausman test shows that for three model we should apply the fixed effects model. The Bartlet, Leven and Brown tests show that there is a heteroskedasticity problem and as a result we should apply GLS model.

Table 4. F, Hausman, and Heteroskedasticity tests

statistics	First model	Second model	Third model
F	10.92	8.82	19.908
Hausman	54	23	41
Bartlet	132.62	94.28	128.99
Leven	12.86	15.49	11.62
Brown	5.08	4.98	5.98

The tables 1, 2 and 3 show that we should apply the fixed effects model. Because the R square is high magnitude and so the coefficients are significant. In

table 1 the coefficient of income is 0.93 and positive, this means one percent increase in income causes 0.94 percent increasing in the demand for money. The coefficient of inflation rate is negative and shows that increase in inflation rate causes decreasing the demand for money. Table 2 shows that one percent increase in income rise 0.77 percent in demand for money. Table 3 shows that income has a positive effect on demand for money and inflation rate has a negative effect on demand for money. These results show that in developed countries in the function of demand for money interest rate and inflation rate are significant. Therefore, according to Gujarati (2003) because of a good result and a high R square we can conclude that this model is appropriate for developed countries.

5. The results for developing countries

Table 5. Estimation of the first model (by inflation rate)

variables	Pooled regression	Fixed effects	Random effects
Intercept	-10.261*** (-3.78)	-13.053*** (-6.81)	-12.94*** (-6.19)
Log(GDP)	1.239*** (11.21)	1.39*** (17.88)	1.39*** (18.06)
Log (INF)	0.424** (2.49)	-0.05*** (-2.82)	-0.05*** (-2.82)
R^2	0.479	0.99	0.71
F	74.51	3841.771	205.651

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant respectively in 10%, 5% and 1% level

Table 6. Estimation of the second model (by interest rate)

variables	Pooled regression	Fixed effects	Random effects
intercept	-12.49*** (-17.21)	-7.036*** (-6.71)	-12.57*** (-5.77)
Log (GDP)	1.39*** (52.75)	1.149*** (27.42)	1.37*** (17.23)
Log (I)	-0.253** (-2.63)	-0.037 (-1.65)	-0.058** (-2.14)
R^2	0.99	0.99	0.71
F	57332.42	103177	196.788

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant respectively in 10%, 5% and 1% level

Table 7. Estimation of the third model (by interest rate and inflation rate)

variables	Pooled regression	Fixed effects	Random effects
intercept	-16.82** (-14.051)	-12.503*** (-6.28)	-12.26*** (-6.18)
Log (GDP)	1.55*** (33.44)	0.678*** (7.42)	1.36*** (17.59)
Log (R)	-0.997*** (-4.72)	1.37*** (17.07)	-0.0014 (-0.036)
Log (INF)	0.77*** (5.01)	-0.56** (-2.31)	-0.053** (-2.081)
R^2	0.99	0.99	0.71
F	8572.659	3448.375	13.23

The numbers in parentheses are t-statistic. *,**,*** indicate that the coefficients are significant respectively in 10%, 5% and 1% level

Table 8. F, Hausman, and Heteroskedasticity tests

statistics	First model	Second model	Third model
F	11.35	9.93	8.87
Hausman	48.62	32	12.23
Bartlet	77.76	143.46	36.18
Leven	8.93	6.64	3.49
Brown	6.99	1.99	2.86

According to table 8 we have applied GLS estimator. The explanatory variables have explained 99 percent of the dependent variable in three models. The results in table 5 the variables are significant and consistent with the theoretical basis. In table 5 income has a positive effect on the demand for money this mean one percent increase in income will rise 1.4 percent demand for money. But interest rate has a negative effect on demand for money. The results of table 6 show that income has a positive and significant effect on the demand for money, but the coefficient of interest rate is negative and significant. The results of table 7 are similar to table 5 and 6, but the coefficient of inflation rate is negative and this means by increasing inflation rate demand for money will decrease. Therefore, in developed countries inflation rate is important in the demand for money.

6. Conclusion

The aim of paper is the study of effective factors on demand for money in the both developed and developing countries. Hence, we have applied three econometric models for two groups of countries. Our models are panel data for two groups of

countries over the period of 1990-2008. In developed countries we have considered interest rate and inflation rate as opportunity cost for money. The results show that because of developed and competitive financial markets in these countries interest rate is a good proxy for stock market and inflation rate is a good one for durable goods, therefore both two variables are opportunity cost for money but in two different market. Interest elasticity in these countries is about two times greater than inflation elasticity. This fact shows that in developed countries interest rate is more important. We can conclude that in these countries durable goods are as consumable goods and not as substitute for money. This issue shows the importance of financial markets in developed countries.

In these countries income elasticity of money is about 0.7. Goldfeld (1973) shows the same results for developed countries. This fact indicates that increasing income rise demand for money and this reality is consistent with the theoretical basis.

In developed countries inflation rate is a better proxy for money opportunity cost of holding money. But we should consider that interest rate is little effective in these countries. This result shows inefficiency and underdevelopment of financial markets in these countries. In these countries the market of durable goods are for speculative demand. In these countries the durable good market does a role for preservation of money stock. Hence, we should conclude that in developing counties real interest rate coefficient is negative. About income elasticity we have a positive effect but the amount of this coefficient is different form Goldfeld (1973) it is 1.4. Inefficiency in financial market in developing countries could increase the elasticity of income. We would suggest both interest and inflation rate for modeling of demand for money for developed countries and inflation rate for developing countries.

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CONSOLIDATED FINANCIAL STATEMENTS UNDER IFRS

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Abstract:
This article is focuses on accounting consolidation techniques and the preparation of consolidation worksheets for the components of financial statements (statement of comprehensive income, statement of changes in equity, and financial position). The presented group includes parent company, two subsidiaries (only one fully controlled by the parent company) and a jointly controlled entity. The financial statements are presented under the following standards IFRS 3 Business Combination, IAS 27 Consolidated and separate financial statements and IAS 31 Interests In Joint Ventures.

Keywords*:* subsidiary, joint venture, noncontrolling interests, the acquirer, goodwill, full consolidation, proportionate consolidation method

JEL: G32 – Financing Policy; Financial Risk and Risk Management; Capital and Ownership Structure; Goodwill; G34– Mergers; Acquisitions; Restructuring; Corporate governance; H32 – Firm; M41 – Accounting.

1. Introduction

Entity A purchased 75% of Entity B' shares at 01/01/2009.

Entity A and Entity X entered into a joint venture management agreement in 2009 and- based on this agreement – a new Entity C was incorporated. Each party contributed with 50% to the share capital of the new entity.

Entity A acquired from the open market 100% of the share capital of Entity D at date of 01/01/2012

Listed below is the aggregate information from individual financial statements of affiliated entities A, B, C, and D.

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Table 1: Statements of Comprehensive Income at 31/12/2012;

Description	Entity A	Entity B	Entity C	Entity D
	CU'000	***CU'000***	***CU'000***	***CU1'000***
Revenue	111.595	84.498	7.454	10.425
Cost of sales	-29.755	-12.205	-1.444	-1.650
Gross profit	81.840	72.293	6.010	8.775
Distribution costs	-8.100	-8.003	-600	-790
Administrative expenses	-8.475	-3.020	-585	-830
Operating profit before tax	65.265	61.270	4.825	7.155
Taxation	-20.250	-18.405	-1.320	-1.965
Profit after tax	45.015	42.865	3.505	5.190

Table 2: Statements of Financial Position as at 31/12/2012

Description	***Note***	Entity A	Entity B	Entity C	Entity D
		CU'000	***CU'000***	***CU'000***	***CU1'000***
ASSETS					
Non Current Assets					
Property, plant and equipment, net value		49.510	53.519	7.050	10.573
Investment in Entity B	1	9.250			
Investment in Entity C	4	2.400			
Investment in Entity D	6	9.180			
Loan to Entity C	5	300			
Current Assets					
Inventory		1.370	2.851	1.780	1.247
Accounts receivables		19.965	14.790	1.580	3.170
Bank		4.230	6.535	1.555	1.450
Total assets		***96.205***	***77.695***	***11.965***	***16.440***
EQUITY AND LIABILITIES					
Capital and reserves					
CU 1/CU1 1 ordinary shares		13.395	7.500	4.800	2.850
Retained earnings		77.000	61.335	6.755	12.210

Non Current Liabilities					
Loan					820
Loan from Entity A	5			300	
Current Liabilities					
Accounts payables		5.765	8.800	100	500
Taxation		45	60	10	60
Total equity and liabilities		***96.205***	***77.695***	***11.965***	***16.440***

Table 3: Statement of Changes in Equity at 31/12/2012

Description	**Entity A**	**Entity B**	**Entity C**	**Entity D**
	CU'000	CU'000	CU'000	CU1'000
Retained earnings at 01/01	31.985	18.470	3.250	7.020
Profit for the year	45.015	42.865	3.505	5.190
Retained earnings at 31/12	***77.000***	***61.335***	***6.755***	***12.210***

All the amounts are denominated in functional currency CU for A, B, and C entities and in functional currency CU1 for D entity.

Further it will be presented the accounting consolidation techniques and the drawing of the consolidation worksheets for the components of financial statements. It will be distinctly presented the stages of consolidation process for each relationship between the parent company (Entity A) and each of its related entities (Entity B, C, and D).
The presentation currency for the consolidated financial statement of Group is CU currency.

2. What is the group's structure?

Group Structure Entity A is parent company (the acquirer)

Table 4: Group's structure and accounting method

Entity	**Group's interest**	**NCI**	**Type**	**Accounting method**	***IFRS***
Entity B	75%	25,00%	Subsidiary (the acquiree)	Full consolidation	*IAS 27*
Entity D	100%	0,00%	Subsidiary (the acquiree)	Full consolidation	*IAS 27*
Entity C	50%	n/a	Joint Venture	Proportional consolidation	*IAS 31*

Full consolidation - „In preparing consolidated financial statements an entity combines the items presented in the financial statements *line by line*, adding together like items of assets, liabilities, equity, income and expenses. When less than 100% of the shares of the acquired entity are owned by the acquirer, a complication arises in the preparation of consolidated statements, and a noncontrolling interest must be determined and presented. The acquired assets and liabilities are still fully included in the parent's consolidated financial statements and are valued at fair value, which has implications for the presentation of noncontrolling interest"(Barry J. Epstein, Eva K. Jermakowicz, 2010, page 556 -557).

Proportionate consolidation is a method of accounting whereby a venturer's share of each of the assets, liabilities, income and expenses of a jointly controlled entity is combined line by line with similar items in the venturer's financial statements or reported as separate line items in the venturer's financial statements.

3. What are the steps of consolidation process?

(i) Identify the acquirer and establish the date of acquisition

(ii) Recognize, measure, and classification the identifiable tangible and intangible assets acquired and liabilities assumed

(iii) Recognize and measure any noncontrolling interest in the acquiree

(iv) Measure the consideration transferred

(v) Recognize and measure goodwill or gain from a bargain purchase

"The objective of consolidated accounts is to present the financial position, performance and evolution of financial position related to entities on the group, as if they would be a single entity" (Niculae Feleaga, Liliana Malciu, 2002, page 296). It is important evolution "in the financial position or performance of the entity' (Rodica Gherghina, Ioana Duca, 2012, page 17).

3.1 Relation Parent Company (Entity A) - Subsidiary (Entity B)

Additional information for the relationship between Entity A- Entity B:

Note 1 Entity A purchases 75% of Entity B' shares - paying the market price for the acquired shares - at 01/01/2009 when the amount of the retained earnings of Entity B was CU3.235.500.

At the date of acquisition the fair value of the assets of Entity B was established as equal to their book value, with the exception of buildings which had a fair value of CU 435.000 in excess of their book value at that date.

This has not been reflected in the books and records of Entity B. If the revaluations had been reflected in the books and records of the Entity B, an additional depreciation of CU 5.000 per year would need to have been charged in each of the four years 2009 to 2012.

Note 2 During the year 2012 Entity A sold goods to the value of CU 748.500 to Entity B, making a profit of 30% on these sales. At 31/12/2012 Entity B still had in inventory CU 175.000 of these goods.

Note 3 The receivables of the Entity A include an amount due from Entity B of CU 85.000. The records of Entity B show a balance owed to Entity A of CU 39.550. A payment of CU 45.450 was made on 30/12/2012 by the Entity B but was not recorded by Entity A until 02/01/2013.

a) Measure the amount of goodwill at the date of acquisition

"IFRS 3 (R) provides the acquirer with a choice of two methods to measure noncontrolling interests arising in a business combination.

1. To measure the noncontrolling interest at fair value (also recognizing the acquired business at fair value), or

2. To measure the noncontrolling interest at the noncontrolling interest's share of the value of net assets acquired (under this approach the only difference is that, in contrast to the approach of measuring the noncontrolling interest at fair value, no portion of imputed goodwill is allocated to the noncontrolling interest)" (Barry J. Epstein, Eva K. Jermakowicz, 2010, page 518 -519).

Implied Value (IV) (Acquisition price /Group's interest) CU 12.333.333;

Acquisition price (the fair value/market value at the date of acquisition): CU 9.250.000; Group's interest is: 75%

Table 5: Value of Goodwill

Description	Parent	NCI	Total
Acquisition price & IV	9.250.000	3.083.333	12.333.333
Book value (BV) of net assets acquired	8.051.625	2.683.875	10.735.500
Difference between IV and BV	1.198.375	399.458	1.597.833
Adjustment to fair value			
Buildings	-326.250	-108.750	-435.000
Rest amount	872.125	290.708	1.162.833
Goodwill recognised	872.125	290.708	1.162.833
Rest amount after the recognision of goodwill	0	0	0

b) Elimination of interests held by Entity A (the acquirer) in Entity B (the acquiree) and recognition of noncontrolling interests in the acquiree

R1	Ordinary share capital - entity B	7.500.000	
	Retained earnings - entity B	3.235.500	
	Difference IV and BV - Entity B	1.597.833	
	Investment in Entity B		9.250.000
	NCI - Entity B		3.083.333

R2	Buildings	435.000	
	Goodwill	1.162.833	
	Difference IV and BV - Entity B		1.597.833

c) Record the amortisation generated by the difference between the fair value and book value of the buildings:

Annual amortization is CU 5.000. Total amortization between date of acquisition (01/01/2009) and date of consolidated financial statements (31/12/2012) is 20000 divided as follow: (i) Current year 2012 CU 5.000; (ii) Previous years CU 15.000

R3	Amortization expense - current year		5.000	
	Retained earnings Parent Entity - opening balance	75%	11.250	
	NCI Entity B - opening balance	25%	3.750	
	Property, plant and equipment			20.000

Table 6: Evolution of equity and noncontrolling interests (NCI):
- in CU –

Date	Equity	NCI	Description
01/01/2009	10.735.500	3.083.333	Opening balance 01/01/2010
01/01/2010-01/01/2012	15.234.500	3.808.625	Opening balance 01/01/2012

R4	Retained earnings Parent - Opening balance	3.808.625	
	NCI Entity B - opening balance		3.808.625

"In preparing consolidated financial statements, any transactions among members of the group (intragroup or intercompany transactions) must be eliminated. For example, a parent may sell merchandise to its subsidiary, at cost or with a profit margin added, before the subsidiary ultimately sells the merchandise to unrelated parties in arm's-length transactions. Furthermore, any balances due to or from members of the consolidated group at the end of the reporting period must also be eliminated.The reason for this requirement is to avoid grossing up the financial statements for transactions or balances that do not represent economic events with outside parties. Were this rule not in effect, a consolidated group could create the appearance of being a much larger entity than it is in reality, merely by engaging in multiple transactions with itself." (Barry J. Epstein, Eva K. Jermakowicz, page 557)

d) Elimination of intercompany transactions (downstream sales)

Sales of goods: CU 748.500

R5	Revenue	748.500	
	Cost of sales		748.500

e) Elimination of the profit's share generated by the previous sale and included in the value of the unsold goods

Value of unsold goods held by the subsidiary at the end of the year is: CU 175.000. The share of the profit included in these goods is: CU 52.500.

R6	Cost of sales	52.500	
	Inventory		52.500

f) Elimination of the inter company balances (Accounts receivables and Accounts payables)

Record the payment of CU 45.450 made by Entity A to Entity B on 30/12/2012

R7	Bank	45.450	
	Accounts receivables		45.450

Intercompany balances elimination

R8	Accounts payables	39.550	
	Accounts receivables		39.550

g) Computing of noncontrolling interests included in Comprehensive income - in CU –

Reported profit by Entity B	42.865.000
(-) Amortization adjustments (difference between FV and BV of buildings)	-5.000
Adjusted profit of Entity B	42.860.000
NCI percentage	25%
NCI included in Comprehensive income - Entity B	10.715.000

3.2 Relation Entity A - Entity C (Joint Venture)

Additional information for the relationship between Entity A- Entity C:

Note 4 Entity A and Entity X entered into a joint venture management agreement in 2009 and a new Entity C was created. Each associate has 50% to the share capital of the new entity. Entity A and Entity X share profits equally and neither has control of Entity C. Entity A uses proportionate consolidation method on a line by line basis to account for joint ventures.

Note 5 During 2011 the Entity A gave a loan of CU 300.000 to the Entity C. No interest is charged for this loan.

„IAS 31 allows two accounting treatments for an investment in the jointly controlled entity: (i) proportionate consolidation; (ii) The equity method of accounting".

"Under the proportionate consolidation method of accounting, the balance sheet of the venturer includes its share of the net assets of the joint venture and the comprehensive income includes its share of the income and expenses of the joint venture." (Abbas Ali Mirza, Magnus Orrell, and Graham J. Holt, 2008, page 216-217).

Determination of assets, liabilities, revenues and expenses controlled by Venture Partner (Entity A) in Jointly Controlled Entity (Entity C). Percentage held by Entity A is 50% according to the existing agreement.

"Joint ventures can take many forms and structures. Joint ventures may be created as partnerships, as corporations, or as unincorporated associations. The standard identifies three distinct types, referred to as jointly controlled operations, jointly controlled assets, and jointly controlled entities. Notwithstanding the formal structure, all joint ventures are characterized by certain features: having two or more venturers that are bound by a contractual arrangement, and by the fact that the contractual agreement establishes joint control of the entity. The contractual provision(s) establishing joint control most clearly differentiates joint ventures from other investment scenarios in which the investor has significant influence over the investee. In fact, in the absence of such a contractual provision, joint venture accounting would not be appropriate, even in a situation in which two parties each have 50% ownership interests in an investee. The actual existence of such a contractual provision can be evidenced in a number of ways, although most typically

it is in writing and often addresses such matters as the nature, term of existence, and reporting obligations of the joint venture; the governing mechanisms for the venture; the capital contributions by the respective venturers; and the intended division of output, income, expenses, or net results of the venture" (Barry J. Epstein, Eva K. Jermakowicz, 2010. page 473).

Accounting method applied is proportionate consolidation.

Table 7: Amounts controlled by Entity A

Description	**Total amounts of Entity C**	**Amounts controlled by Entity A**
Revenue	7.454.000	3.727.000
Cost of sales	-1.444.000	-722.000
Distribution costs	-600.000	-300.000
Administrative expenses	-585.000	-292.500
Taxation	-1.320.000	-660.000
Property, plant and equipment, net value	7.050.000	3.525.000
Inventory	1.780.000	890.000
Accounts Receivables	1.580.000	790.000
Bank	1.555.000	777.500
Loan from Entity A*)/ Claim against the other associate Entity X	300.000	150.000
Accounts Payables	100.000	50.000
Taxation	10.000	5.000
Retained earnings at 01/01	3.250.000	1.625.000

*) Entity A cannot lend money to itself and - as a consequence - Entity A must eliminate the value of the loan lend to the Entity C. However, due to the fact Entity C is a joint venture between Entity A and another associate named Entity X, Entity A has, in fact, a claim against Entity X for 50 % from the value of the loan.

Integration of controlled assets, liabilities, revenues and expenses into the Financial Position of Entity A is done by using proportionate consolidation method.

- in CU -

R9	Investment in Entity C	55.000	
	Accounts payables		50.000
	Taxation		5.000

R10

Loan owned by associate Entity X /Claim against X	150.000	
Loan gave by Entity A (entire amount)	-300.000	
Property, plant and equipment , net value	3.525.000	
Inventory	890.000	
Accounts receivables	790.000	
Bank	777.500	
Investment in Entity C		5.832.500

R11

Investment in Entity C	5.352.000	
Revenue		3.727.000
Retained earnings at 01/01		1.625.000

R12

Cost of sales	722.000	
Distribution costs	300.000	
Administrative expenses	292.500	
Taxation	660.000	
Investment in Entity C		1.974.500

3.3 Relation Parent Company (Entity A) - Subsidiary (Entity D)

Additional information for the relationship between Entity A- Entity D:

Note 6 Entity A acquired from the open market 100% of the share capital of Entity D at date of 01/01/2012 at a cost of CU 9.180.000. At the date of acquisition the fair value of the assets of the Entity D was equal to their book value, with the exception of land which had a fair value of ***CU1*** 1.500.500 in excess of its book value. This has not been reflected in the books and records of Entity D.

Note 7 The exchange rates for the year are as follows: (i) 01/01/2012: 1CU = 1,25 CU1; (ii) 31/12/2012: 1CU = 2 CU1; (iii) Average 2012: 1CU = 1,65 CU1.

Note 8 Between Entity A and Entity D does not exist intercompany transactions.

Entity D represents a foreign operation for the Group. According to IAS 21 *The Effects of Changes in Foreign Exchange Rates* a **foreign operation** is a subsidiary, associate, joint venture, or branch whose activities are based or conducted in a country or currency other than those of the reporting entity. „If the presentation currency differs from the functional currency, the financial statements are

retranslated into the presentation currency. If the financial statements of the entity are not in the functional currency of a hyperinflationary economy, then they are translated into the presentation currency in this way:

- Assets and liabilities (including any goodwill arising on the acquisition and any fair value adjustment) are translated at the closing spot rate at the date of that balance sheet;

- The comprehensive income is to be translated at the spot rate at the date of the transactions (Average rates are allowed if there is no great fluctuation in the exchange rates);

- All exchange differences are recognized in a separate component of equity." (Abbas Ali Mirza, Magnus Orrell, and Graham J. Holt, 2008, page 161)

Table 8: Statements of Comprehensive Income of Entity D at 31/12/2012

Description	**Entity D**	Exchange rate	**Entity D**
	CU1'000		***CU'000***
Revenue	6.950	1,65	4.212,12
Cost of sales	-1.650	1,65	-1.000,00
Gross profit	5.300		3.212,12
Distribution costs	-510	1,65	-309,09
Administrative expenses	-570	1,65	-345,45
Operating profit before tax	4.220		2.557,58
Taxation	-1.310	1,65	-793,94
Profit after tax	2.910		1.763,64

Table 9: Statement of Changes in Equity of Entity D at 31/12/2012

Description	**Entity D**	Exchange rate	**Entity D**
	CU1'000		***CU'000***
Retained earnings at 01/01	7.020	1,25	5.616
Profit for the year	2.910		1.763,64
Retained earnings at 31/12	***9.930***		***7.379,64***

Table 10: Statements of Financial Position of Entity D at 31/12/2012

Description	**Entity D**	Exchange rate	**Entity D**
	CU1'000		***CU'000***
ASSETS			
Non Current Assets			
Property, plant and equipment	10.573	2	5.286,50
Current Assets			
Inventory	1.247	2	623,50
Receivables	3.170	2	1.585,00
Bank	1.450	2	725,00
Total assets	***16.440***		***8.220,00***
EQUITY AND LIABILITIES			
Capital and Reserves			
CU 1/CU1 1 ordinary shares	2.850	1,25	2.280,00
Retained earnings	12.210		7.379,64
Non Current Liabilities			
Loan	820	2	410,00
Current Liabilities			
Payables	500	2	250,00
Taxation	60	2	30,00
Total equity and liabilities	***16.440***		***10.349,64***
Adjustment from conversion (8.220,00 – 10.349,64)			***-2.129,64***
Total			**8.220,00**

"The consolidation process of companies' accounts from the group cannot be done unless they are denominated in a single currency, respectively the currency used for consolidation" (Cernusca, 2004, page 350).

a) Measure the amount of goodwill at the date of acquisition

Implied Value (IV) (Acquisition price /Group's interest) 11.475.000 *denominated in CU1*

Acquisition price: ***CU1*** 11.475.000 Group's interest is: 100%

Table 11: Value of Goodwill

Description	**Parent (in CU1)**
Acquisition price & IV	11.475.000
Book value (BV) of net assets acquired	9.870.000
Difference between IV and BV	1.605.000
Adjustment to fair value	
Buildings	-1.500.500
Rest amount	104.500
Goodwill recognised	104.500
Rest amount after the recognition of goodwill	0

b) Elimination of interests held by Entity A (the acquirer) in Entity D (the acquiree) - in CU –

R13	Ordinary share capital - Entity D	2.280.000	
	Retained earnings - Entity D	5.616.000	
	Difference IV and BV - Entity D	1.284.000	
	Investment in Entity D		9.180.000

R14	Land	1.200.400	
	Goodwill	83.600	
	Difference IV and BV - Entity D		1.284.000

Value of the increase of land established at the date of acquisition		1.200.400
Revaluated amount at the end of year	31.12.2012	750.250
Difference		-450.150

R15	Retained earnings - Entity D	450.150	
	Land		450.150

Value of Goodwill at the date of acquisition		83.600
Revaluated value at the end of year	31.12.2012	52.250
Difference		-31.350

R16	Retained earnings - Entity D	31.350	
	Goodwill		31.350

Remember: Between Entity A and Entity D does not exist intercompany transactions.

4. How the mentioned above adjustments are displayed into the worksheets relating to consolidation process?

4.1 Worksheet for Individual/Consolidated Statement of Comprehensive income

Description	**Entity A**	**Entity B**	**Entity D**	***Note***	***Adjustments***		***Note***	***NCI***	***Consolidated amounts***
	CU'000	***CU'000***	***CU'000***		***Debit***	***Credit***			
Revenue	111.595	84.498	4.212,12	***R5***	748,50	3.727,00	***R11***		203.283,62
Cost of sales	29.755	12.205	1.000,00	***R6***	52,50	748,50	***R5***		42.986,00
				R12	722,00	-			
Gross profit	***81.840***	***72.293***	***3.212***						***160.297,62***
Distribution costs	8.100	8.003	309,09	***R12***	300,00	-			16.712,09
Administrative expenses	8.475	3.020	345,45	R3	5,00	-			12.137,95
				R12	292,50	-			
Operating profit before tax	65.265	61.270	2.558						131.447,58
Taxation	20.250	18.405	793,94	***R12***	660,00	-			40.108,94
Profit after tax	45.015	42.865	1.764						91.338,64
NCI in comprehensive income - Entity B								**10.715,00**	10.715,00
Profit after tax included in equity	***45.015***	***42.865***	***1.763,64***		**2.780,50**	**4.475,50**		**10.715,00**	***80.623,64***

4.2 Worksheet for consolidated statement of changes in equity

Description	**Entity A**	**Entity B**	**Entity D**	***Note***	Adjustments		***Note***	***NCI***	***Consolidated amounts***
	CU'000	***CU'000***	***CU'000***		Debit	Credit			
Retained earnings at 01/01									
Entity A	31.985			R3	11,25	-			31.973,75
Entity B		18.470		R1	3.235,50	-			11.425,88
				R4	3.808,63	-			
Entity D			5.616,00	R13	5616	1.625,00	R11		1.625,00
Profit after tax included in equity	**45.015**	**42.865**	**1.763,64**		**2.780,50**	**4.475,50**		**10.715,00**	***80.623,64***
Exchange loss/profit			-	R15	450,15	-			-2.611,14
			2.129,64	R16	31,35	-			
Retained earnings at 31/12	**77.000**	**61.335**	**5.250,00**	**0**	**15.933,38**	**6.100,50**	**0**	**10.715,00**	**123.037,13**

4.3 Worksheet for Individual / Consolidated Statement of Financial Position

Description	Entity A	Entity B	Entity D	*Note*	Adjustments		*Note*	*NCI*	*Consolidated amounts*
	CU'000	*CU'000*	*CU'000*		Debit	Credit			
ASSETS									
Non Current Assets									
Property, plant and equipment	49.510	53.519	5.286,50	R2	435	20	R3		113.005,75
				R10	3.525	-			
				R14	1.200,40	450,15	R15		
Investment in Entity B	9.250				-	9.250	R1		0,00
Investment in Entity C	2.400			R9	55	5.832,50	R10		0,00
				R11	5.352	1.974,50			
Investment in Entity D	9.180			R13	-	9.180	R13		0,00
Loan to Entity C	300			R10	-300,00	-			0,00
Difference IV and BV - Entity B				R1	1.597,83	1.597,83	R2		0,00
Difference IV and BV - Entity D				R13	1.284	1.284	R14		0,00
Goodwill - Entity B				R2	1.162,83	-			1.215,08
Goodwill - Entity D				R14	83,60	31,35	R16		
Loan owned by associate Entity X				R10	150	-			150,00
Current Assets									
Inventory	1.370	2.851	623,50	R10	890	52,50	***R6***		5.682,00
Accounts receivables	19.965	14.790	1.585,00	R10	790	45,45	R7		37.045,00
						39,55	R8		
Bank	4.230	6.535	725,00	R7	45,45	-			12.312,95
				R10	777,50	-			
Total assets	***96.205***	***77.695***	***8.220,00***		-	-			***169.410,78***

EQUITY AND LIABILITIES									
Capital and Reserves									
Ordinary share capital - Entity A	13.395				-	-			13.395,00
Ordinary share capital - Entity B		7.500		R1	7.500,00	-			0,00
Ordinary share capital - Entity C					-	-			0,00
Ordinary share capital - Entity D			2.280,00	R13	2.280,00	-			0,00
Retained earnings	**77.000**	**61.335**	**5.250**		**15.933,38**	**6.100,50**		**10.715,00**	**123.037,13**
NCI - Entity B				R3	3,75	3.083,33	R1	10.715,00	17.603,21
					-	3.808,63	R4		
Non Current Liabilities									
Loan	0	0	410,00		-	-			410,00
Loan from Entity A	0	0			-	-			0,00
Current Liabilities									
Payables	5.765	8.800	250,00	R8	39,55	50,00	R9		14.825,45
Taxation	45	60	30,00		-	5,00	R9		140,00
Total equity and liabilities	***96.205***	***77.695***	***8.220,00***		***42.805,29***	***42.805,29***			***169.410,78***

5. What is the structure of consolidated financial statement?

Table 12: Consolidated statement of comprehensive income at 31/12/2012 CU'000

Revenue	203.284
Cost of sales	42.986
Gross profit	160.298
Distribution costs	16.712
Administrative expenses	12.138
Operating profit before tax	131.448
Taxation	40.109
Profit after tax, attributable to:	**91.339**
Noncontrolling interests	**10.715**
Owners of the parent	**80.624**

Table 13: Consolidated statement of changes in equity at 31/12/2012 CU'000

Description	Share Capital	Retained earnings	***Total***
Balance @ 01/01	13.395	45.025	*58.420*
Profit	0	80.624	*80.624*
Exchange (loss)/profit	0	-2.611	*-2.611*
Total @ 31/12	***13.395***	***123.038***	***136.433***

Table 14: Consolidated Financial Position at 31/12/2012 CU'000

ASSETS	
Non Current Assets	
Property, plant and equipment	113.006
Goodwill	1.215
Loan owned by associate Entity X	150
Current Assets	
Inventory	5.682
Accounts receivables	37.045
Bank	12.313
Total assets	***169.411***
EQUITY AND LIABILITIES	

Capital and Reserves	
Ordinary share capital -Entity A	13.395
Retained earnings	123.037
Atribuibil to the equity shareholders	**136.433**
NCI	17.603
Non Current Liabilities	
Loan	410
Current Liabilities	
Payables	14.825
Taxation	140
Total equity and liabilities	***169.411***

6. Base for presentation and conclusions

This article is focused on the consolidation techniques and necessary worksheets. The group is compounded by parent company, two subsidiaries, and one joint venture entity. Consequently the parent company (entity who prepares the consolidated financial statements) should apply different standards as mentioned bellow.

The consolidated financial statements are prepared based on IAS 27 *Consolidated and Separate Financial Statements (2008)* for consolidation of its two subsidiaries (Entity B and D) and IAS 31 *Interests in Joint Ventures (2003)* for the joint venture (Entity C).

Starting from 12 May 2011:

- IAS 31 is superseded by IFRS 11 *Joint Arrangements* and IFRS 12 *Disclosure of Interests in Other Entities* effective 1 January 2013;
- IAS 27 (2008) is superseded by IAS 27 (2011) *Separate Financial Statements* effective 1 January 2013; and
- IAS 28 (2003) is superseded by IAS 28 (2011) *Investments in Associates and Joint Ventures* effective 1 January 2013

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CONTAINERS AND THEIR EFFECT IN DURRES PORT

Osman Metalla,
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Abstract

Since the introduction of containerization, container throughput in the world has continuously increased. Today more than 90% of the world cargoes are transported by sea, and containerized cargoes are increasing year after year. The above tendency of world container transportation has given a significant impact on Albanian ports as well and especially in the port of Durres. Durres port is the main gateway of Albania, where more than 85% of the seaborne cargoes go through this port. During the recent years, the volume of general cargo that has been handled in this port has been gradually reduced and instead, a continuous and rapid growth of containerized cargoes has been observed. In order to have an effective and productive terminal, a number of factors need to be studied, because the higher the terminal productivity, the higher the difference between the revenues and the costs will be. There are a number of factors to be considered like port congestion, traffic management and safety aspects in the terminal. This paper gives an overall picture of various operations in Durres port containers terminal. Since this port is very new in containers handling operations, and the container traffic forecast is optimistic, there are a number of issues to be addressed in order to make the Port of Durres an adequate port, able to handle the containerized cargo in the future as well as to be a competitive port in the region. Development of the container terminal, improvement of port facility and port performance, application of technology and information systems, increasing the quality of services are key factors for developing the Durres port container terminal on severe regional container port competition.

Keywords: globalization, container terminal, development strategy

JEL Classification: L 12, O15,

1. Introduction

Containerization since it first was presented in earliest 70`s, is continuing to make an important role in the growing of international trade. Containerization has affected the international markets, shipping and ports industry, shipping lines, thus offering new transshipment opportunities. World container traffic has had a

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sustainable growth and has been accompanied by the globalization of container shipping market. Shipping lines always have been in search of cost reduction and faster transit times and that has resulted in the growth of "hubs" or loaded centers and the evaluation of feeder services. On the other hand severe competition has lead into construction of larger vessels. The following table 1 gives an overall picture on the evolution of the container vessels since they were first introduced in the shipping industry.

Very large carriers are emerging and lines are entering into various types of strategic alliance. Currently, 8000 – 12000 TEU vessels are in operation in major lines linking far-east to European or US ports. This tendency in increasing vessel size leads into demand for deeper access channels and ports, as well as ports equipped with proper infrastructure able to handle all this massive transportation of containers.

Table1. Technical characteristics of container vessels in years

Range	Class (TEUs)	Capacity	Year Construction	Draft
TEUs		TEUs		Meters
1	Feeder (100-499)	322	1960	6,24
2	Feedmax (500-999)	735	1966	8,29
3	Handy (1.000-1.999)	1405	1968	10,60
4	Sub Panamax (2.000-2.999)	2254	1969	13,23
5	Panamax (3.000 +)	3075	1985	16,16
6	Post Panamax (4,000 +)	4625	1988	17,20
7	Post Panamax Plus1 (5,000 +)	5225	1995	17,58
8	Post Panamax Pus 2 (6,000 –)	6375	1996	18,13
9	Post Panamax Pus 3 (7,000 –)	7250	1997	18,92
10	Post Panamax Pus 4 (8,000 –)	8050	2001	19,50
11	P. Pan Plus 5 (Clement Maersk)	9600	2002	20,80
12	P. Pan Plus 5 (Axel Maersk)	9310	2003	20,99
13	Suez Max (Gudrum Maersk)	10150	2005	21,86
14	Post Suez Max (Emma Maersk)	15200	2006	23,70
15	Corea STX	22000	2012	26,79

source: container shipping yearbook

Globalization and containerization has already had an important effect on Albanian Ports, thus increasing the quantity of goods transported in boxes. This is reflected in the significant increasing of the number of TEU-s handled each year in Albanian ports and especially in Durres Port which is the main and the biggest port of Albania. With continuing growth in trade through Albanian ports and especially Durres Port, there is a clear vision for the port development strategy. This paper analyses the effects of world container market and globalization in liner shipping and the new role that Durres port will take as a regional port in container feeder services.

2. Review of the literature

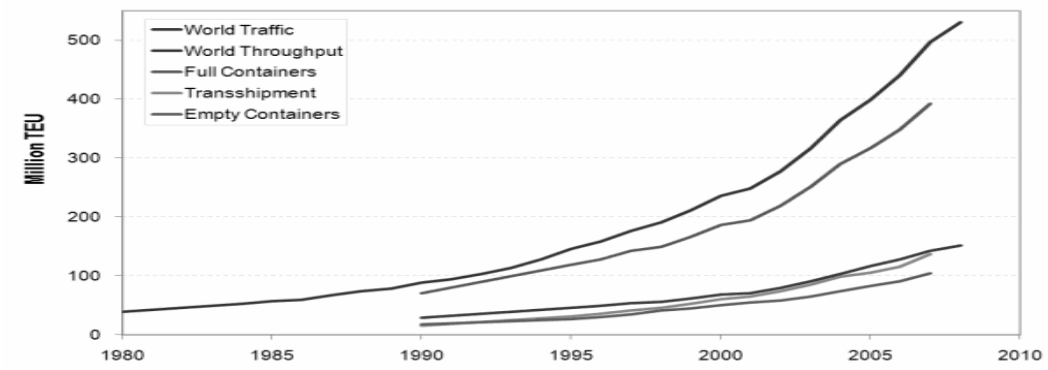
Port of Durres is the only Albanian port which is handling containers. Initially this port started with containers about 15 years ago. Initially this port could handle 500 – 800 TEU per year, and since then, containers started to take over the general cargo. Actually this port is handling around 100.000 TEU per year.

From the first containerized commercial services in the late 1950 until the design of the first container ship in the 1960´s, the container was an unknown variable in global shipping. During 1970-1990 container became acknowledged as a transport product and investments in intermodal facilities accelerated. This involved the construction and reconversion of several container port terminals as well as the introduction of container ships.

Containerization began to seriously impact global trade patterns and manufacturing strategies, particularly with the entry of China in global economy. The emergence of new manufacturing clusters incited long distance container services. Additionally container started to go further inland with rail and barge services

Between 1990 and 2008 container traffic has grown from 28.7 million TEU to 152 million TEU which represent an increase of approximately 430%. This corresponds to an average annual growth of 9.5%. During the same period container throughput went from 88 million TEU to 530 million TEU, an increase of 500%, equivalent to an average of 10.5% annually. The trend underlines a divergence between throughput and traffic as global supply chains become more complex. Consequently the ratio of container traffic over the container throughput stood at 3.5 in 2008 and was around 3.0 in 1990. The surge of both container traffic and throughput is linked with the growth of international trade in addition to the adoption of containerization as privileged vector for maritime shipping and inland transportation. So far, the growth of container throughput behaves according to standard technological diffusion curve.

Chart 1. The world container traffic



Sorce: containerization international year book 2012

The maturation of container traffic will be linked with the maturation of global economy. This can be linked to a number of factors such as limits to the exploitation of comparative advantages in manufacturing as well as the associated trade imbalances and higher energy prices. Technical limits of the economies of scale both from the maritime and land side of containerization are also linked to play significantly for containerized traffic, but the maturity of containerization is likely to be more economic than a technical process. Already the global recession that began in 2008 has been associated with a significant reduction in containerized traffic.

3. Containerization of cargos in Durres Port

As we mentioned above there exist a strong tendency in increasing the world containers traffic. This tendency is observed in the traffic of the Durres port as well. Although the world wide trend is to increase the containerization of cargoes and of general cargo in particular, there will always be certain commodities which are less apt to be transported in containers. To express the share of general cargo that is transported in containers, the following equation is often used:

Cngc/Totgc= Cngc/Cnblgc x Cngc/Totgc

Where: **Cngc** – containerized general cargo
Totcg – total general cargo
Cnblggc – containerizable general cargo.

The left side of the equation is often referred as the "Containerization Rate". The first factor in the right side of the equation is often referred as the Containerization degree and it is the percentage of containerizable cargo that is actually transported in containers. The second factor on the right side of the equation refers to the containerisability - this dimension parameter refers to the share of the general cargo which could be transported in containers. It depends on the mox of commodities handled in the port(s) considered. In order to determine the share of containerizable cargo in the commodity mix of general import cargo in Durres port referring the statistics of the Durres port, the commodities shown in the following table can be transported in containers:

Application of these containerizability rates to the imports in Durres shows that about 90% of the general cargo can be containerized. In reality not all containerizable cargo will effectively be transported in containers. There will always be a part of the containerizable cargoes that will be transported outside containers, such as per example bagged cargoes. This means that the containerization degree will be lower than 100%.

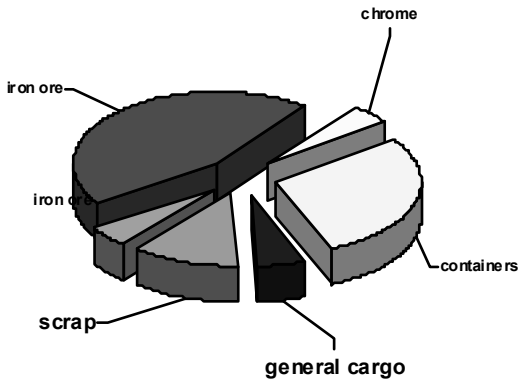
Table 2. Containerizability of general cargo per class

Commodity	Containerazibility	Commodity	Containerazibility	Commodity	Containerazibility
Flour	100%	Chemicals	100%	Sugar	100%
Barit	100%	Rice	100%	Machinery	50 - 70%
Edible oil	100%	Animal food	100%	Bananas	100%
Glass	100%	Vegetables	100%	Cement (bags	100%
Bricks/tiles	100%	Scrap/steel	100%	Steel	50%
Construction material	70%	Wine	100%	Nitrat/urea in bags	100%
Other general cargo	100%				

4. Data of Containers in Durres Port

The statistics show an impressive growth of containerized cargo that has been transported in containers during the recent years. Even though the containers traffic was introduced only e few years ago in the Durres port this traffic is gaining the biggest part of the cargoes that are being transported in containers. The following chart shows

Chart 2: The distribution of the cargo handled in the port of Durres

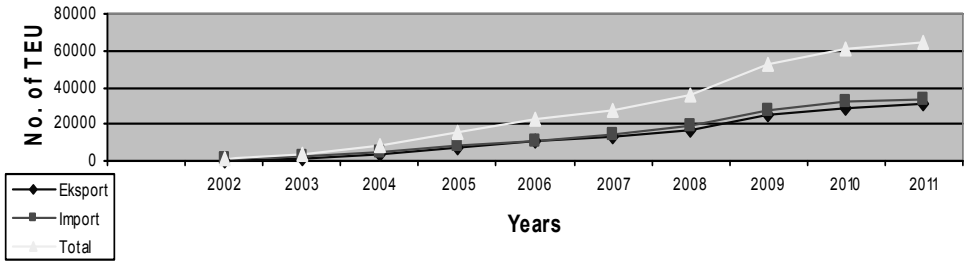


Durres port has a short history in handling containers. Until 1996, only 20 feet containers could be handled in this port due to the lack of proper infrastructure. Actually Durres port Authority is managing the new containers terminal which is capable of handling all types of containers from 10 – 45 ft.

The development of the containers terminal in wharfs 6 & 7 made it possible to establish new markets for the Durres port and has dramatically reduced the handling of general cargo. Container ships are being handled in wharfs 6 & 7 which have an overall length of 465ml and a backup area for storing containers of 56.000m^2.

In order to support the containers terminal in Durres Port on loading unloading the container ships, there are available a number of container handling equipments like reach stacker, forklifts of high tonnage, tugs and trailers, etc

Chart 3. Containers traffic in the port of Durres



It is forecasted that the containers trafic will be in a continuous increasement, consequently the efficient functioning of the terminal as well as the new investments in procuring the handling equipments of the containers is important. Actually in the port there are three regular liners from and to Kastellon – Spania, Pireaus Greece, and Rijeka Croatia making it possible to have container ships almost everyday in the terminal.

Refering to the figures of the container handled through Durres Containers Terminal, in 2009 has had a high rate of growth up to 140% compared to 2005. Certainly that the Global Crises has had its impact in the Albanian market. It is important to underline that while in the european countries all ports have suffered a negative growth of almost 15%, in Durres port the growth has been positive up to 5%.

Table 1. The total tonnage and number of TEU handled in Durres Port Containers Terminal during period 2005-2010

Years	Export			Volume in Tonne Export	Import			Volume in Tonne Import	Total number of Boxes	TEU Total	Volume in Tonne
	Number		TEU		Number		TEU				
	20"	40"			20"	40"					
2005	4,482	1,457	7,396	16,970	4,640	1,625	7,890	130,471	12,204	15,286	147,441
2006	5,797	2,445	10,687	26,443	5,898	2,647	11,192	188,178	16,787	21,879	214,621
2007	8,054	3,965	15,984	69,423	8,647	4,248	17,143	287,751	24,914	33,127	357,174
2008	11,450	5,405	22,260	157,185	13,518	5,510	24,538	424,942	35,883	46,798	582,127
2009	17,714	8,356	34,426	293,631	16,782	8,707	34,196	504,125	51,559	68,622	797,756
2010	18,040	8,820	35,680	460,823	17,664	9,135	35,934	507,678	53,659	71,614	968,501
2011	8,376	5,632	19,640	215,792	8,486	5,167	18,820	277,058	27,661	38,460	492,850

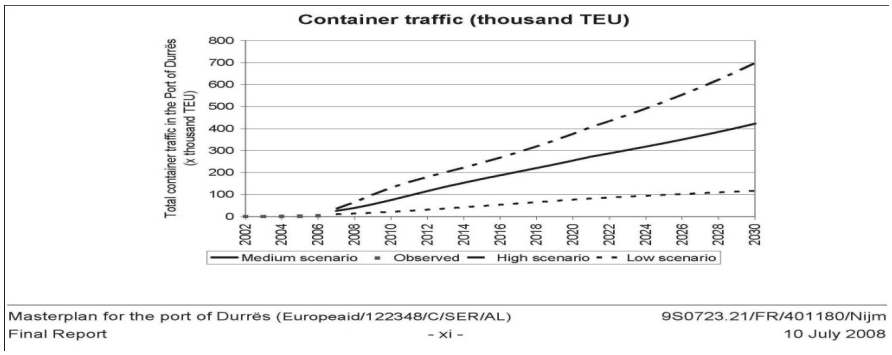
V.O. Year 2011 is 6/Months

Source: APD

The completion of the Nation's Road has established a new platform for the development of transport and logistics for both Albania and Kosovo. The impact of this road is very positive, but due to the limited time this impact has not been measured in real terms. There is an increased interest for the use of Durres Port for the transfers of containerized cargoes from/to Kosovo and Macedonia as well.

The company Royal Hoskoning has calculated the traffic forecast of containers in the coming years as shown in the following chart:

Chart 2. The containers traffic forecast for Durres Port (Royal Haskoning)



This study (Royal Haskoning study) is carried out during 2007-2008 period of time where the global financial crises was difficult to be foreseen. In order to respond to this new trend on transporting maritime cargos on containers, we have taken in to considerations two scenarions for the port of Durres:

Scenario A: the development of the existing container terminal in Durres port and expanding it within port premises

Scenarion B: the building a new containers terminal in order to handel the fofrecasted containers traffic and to extend Durres port feeder services in regional level.

5. Discussion of Problems in Contaier Handling in Durres Port

- **Poor port performance**

There are many ways of measuring port performance/productivity, namely physical indicators, factor productivity indicators, and economic and financial indicators. Physical indicators generaly refer to time measures and are mainly concerned with the ship. Berth occupancy rate is the percentage of time vessels are berthed at port. Turnaround time is total time between arrival and departure for all ships divided by number of ships. Following chart shows main port perfomance indicators for Durres port:

1. **Physical constraints**

Another major problem for Durres Port is the lack of proper infrastructure needed in container ports for proper containers operations. Port of Durres offer a

restricted water depth therefore the access channel is not suitable to access bigger vessels. The port itself offers a draft of 9.25m which composes another constrain for this port. Lack of specialised gantry cranes as well as the limited terminal areas compose seroius constraints for this port. There are only two mobile gantry cranes and a few reachstackers in order to move and store the containers. Therefore the capacity of this terminal is so limited. In order to handle an increased forecast traffic an improvement of the overall port and terminal infrastructure need to be carried out.

2. **Lack of free zones**

The limited back area of the port is one of the main constraints of the port and terminal. Port of Durres is sorrounded from the city and there hardly is any possibility for future expansioln of the port. The existing area of the terminal is almost at the edge of the claculated capacity of the terminal. Therefore it os of vital importance for the terminal to search for new ways of increasing its handling capacity. For this purpose free zones are a solution. At present there is no free zone serving the port and therefore this is one of the future challanges for the port and terminal.

Autoriteti Portual Durrës
DURRES PORT AUTHORITY

Drejtoria e Shërbimeve Operacionale
Terminali Lindor dhe Perendimor *Vjetore 2009 / 2010*

Të dhëna të përgjithshme	2009	2010
Nr. kalatave	8	7
Gjatesia e kalatave	1,324	1,146
Anije të përpunuara	692	560
Tonazhi mesatar per Anije	2,389	3,049
Tonazh i përpunuar	1,653,472	1,707,343
Orë qëndrimi në Port	60,768	48,768
Ditë qëndrimi në Port	2,532	2,032
Orë qëndrimi në kalatë	43,416	32,808
Ditë qëndrimi në kalatë	1,809	1,367
Ditë muaji	366	365

Indikatoret operacional

1	Mesatarja e ciklit të anijes		2009	2010	Krahasimi
Mesatarja	Anijeve në Port	orë	88	87	përmirësim i kohës me 1 orë
	Anijeve në kalatë	orë	63	59	përmirësim i kohës me 4 orë

2. a	Tonazhi mesatar për ditë anije		2009	2010	Krahasimi
Mesatarja	Anije në Port	ton/ditë	653	840	përmirësim i produktivitetit 187 ton/ditë
	Anije në kalatë	ton/ditë	914	1,249	përmirësim i produktivitetit 335 ton/ditë

Source: Durres Port Authority

3. **Technology and information systems**

The continues growth in container traffic in the port of Durres appeals for a better management of the terminal operations, a better and more efficient usage of the yard area, thus making the port and the terminal more attractive for the port users and more competitive. The Port management Information system in Durres Port provides these benefits:

- Safety – Through the VTMS the port Authorities and Harbor Master Office monitor the maritime traffic in arrival and departure from the Port in order to avoid any maritime incidents in the maritime area under its jurisdiction.
- Security – a full insight to available information on ship's history and cargo, in accordance with ISPS rules,
- Efficiency – ensures that all resources to handle ships arrival are available in time for the shortest possible turnaround. This includes resources like berths, pilots, stevedores and linesmen.
- Sustainability- taking care of port environment. One of the things this entails, is checking ship's manifests for dangerous cargoes and making sure that ships with dangerous cargo are well separated from other ships.

Apart of these, Durres port lacks the appropriate technology and information systems. This is another constraint for the port and still remains a challenge for the future.

6. Conclusion

Globalization and containerization have a direct impact on Albanian Ports and in particular in the development of Port of Durres as the main and biggest port of the country. The poor port performance, physical constraints, lack of a logistical hub in the country are the main problems facing Durres port. Increasing of existing capacities of containers terminal is one of the developments Durres port has to undergo in the coming years in order to remain a competitive port, and increase its hinterland. Without improving port performance and eliminating all physical constraints, port of Durres will remain solely a port with local effects, and out of being a regional port. Privatization of services and increasing the private sector participation, improving physical parameters of the port as deepening the access channel, increasing the terminal storage area, founding free zones will be some of the near future challenges of the port. If we have to refer to the optimistic scenarios of the containers traffic in the future, a new and modern terminal construction should be considered. These will make port of Durres able to survive on severe regional and global container port competition.

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IMPACT OF MACROECONOMIC POLICIES ON POVERTY ALLEVIATION IN PAKISTAN

Israr Fahad[*],
Ali Rehmat[**]

Abstract

This paper provides strategy to explain the macroeconomic determinants for eradicating poverty in Pakistan. An empirical analysis of macroeconomic indicators are based on the data for the year 1994 to 2005. Ordinary least square estimation was used to estimate the parameters of multiple variable regression model. Gini coefficient is used to measure the inequality in income distribution. The results suggest that per capita income, and remittances, are highly significant, developmental expenditure, and unemployment rate have significant affect to alleviate poverty. Elimination of poverty is impractical without the increase in per capita income. The paper comes to the conclusion that government should promote investment in social and developmental projects, creating job opportunities, increasing individual per capita income, and capturing the improvement in the individual standard of living.

Keyword: Poverty, Gini coefficient, per capita income, remittances, OLS

JEL Classification: C12, C13, O11, O15, I3

I. Introduction

Majority of the population in developing countries including Pakistan is disproportionately located in rural areas. According to Todaro (2006, p.238), on average about 80 percent of all targeted poverty groups in Asia and Africa resides in rural areas. Most rural people depend on agriculture for their livelihoods. In Pakistan, rural areas have higher poverty and worse human development indicators than urban areas (IFAD, 2001). It is severe among household engaged in agriculture, casual labor, informal business, and livestock owners. Principal cause of hunger and under nourishment is the poverty. The food and agriculture organization of United Nations estimates that the number of hungry people worldwide has reached 963 million or roughly 15 percent of the estimated world population (Pakistan Economic survey 2009, p.127). Pakistan is faced with multifaceted dilemma. Illiteracy is high among

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women in rural areas of Pakistan, having limited economic option and access to social services. Yet they play a major role in household economy and providing care to their families.

In the 1960s rural agriculture and technology of less developed countries was in a need of mutation as it was yielding low growth rate (Schultz, 1964). Pakistan made its transformation in form of scientific and technological inputs like seeds, fertilizers, pesticides, and water having high yielding varieties (HYV) accompanied by greater mechanism of agriculture like tube-wells and tractors. This puts Pakistan wheat and rice Green Revolution Modern Variety (GRMV) production at a faster rate than was the case for South Asia generally (Robert E, Evenson, 2005). In 1970 vast overseas immigration of rural people largely to Middle Eastern countries had an important impact on the rural sector. A survey investigates that about 63 percent of foreign workers come from non urban areas (Gilani et al, 1981). This increases the inflow of remittance into the Pakistan and had significant impact on the rural wages.

From the 1980's Pakistan skilled strong growing of financial development as GDP greater by more than six percent yearly. This was achieved due to restricting the government intervention, recovery of private market, denationalization, providing economic and welfare measures to Islamize the economy and accomplishing rapid increase of remittance flow into the economy (Amjad and Kemal, 1997, p.42). It is unfortunate that Pakistan experienced significant increase in poverty in 1990's due to sluggish growth, lack of safety precautions, destabilizing macroeconomic methods, loss of the circulation of remittances from offshore workers, shedding of surplus labor by state own enterprises and impoverish governament. It shows ample evidence that poverty which reduces rapidly in Pakistan in the 1970's and 1980's has return in 1990's (Amjad and Kemal, 1997; Ali and Tahir, 1999).

The poverty and development cannot be examined without related changes in the agriculture sector. In 1970 the farming market such as its resource utilization, production structure, technology and land tax has undergone significant changes which have affected the structure of rural society, and building the investment in social and physical infrastructure for rural areas. The process of farming alteration has been altered by the government wrong policies regarding agriculture subsidies taxes, price support, land tenure system, control of farm marketing program, processing industries and the influence of landed elite (Chaudhry, Malik and Ashraf, 2006, p.265).

Rural poverty prevails to be linked with the lack of property in rural areas. The unequal area possession leads to be one of the major causes of poverty as poverty levels are high among landless households followed by non-agriculture households. The landless households are high in rural area. About 75 percent own no land in the nation suggesting highly skewed land ownership pattern (Anwar, T, Sarfaraz K, Qureshi, and Ali Hammad, 2004). It is suggested that farming will continue to be one of the most important sectors of Pakistan for years to come to ameliorate poverty. It can be increase by easy excess of small farmer to credit availability of quality

fertilizer, pesticides, tractor, harvest services improvement in education system and the farmer education (Bhutto W. A, Bazmi A. A, 2007). The high increase in the food prices in the last three years has pushed 11 million people into a state of hunger and poverty. If no policy action is taken the number will increase to 22 million people over the next four years (Hussain A, 2008).

2. Pakistan and Poverty

According to World Bank (1995) significant government programmes Bait-ul-Mal[1] accounted about 0.05 percent of the GDP in 1994-95 and Zakat[2] and Usher[3] for 0.2 percent of GDP in 1993-94. The rural population tends to be less educated, less healthy, experiencing poorer service delivery, poor access to public goods, and limited employment opportunities. Pakistan ranks 134 in human development index, the participation rate at primary education level is about 70 percent, out of which 50 percent of the students drop out by the fifth grade. Only 32 percent have access to potable water and 38 percent have availability to sanitation (Amjad and Kemal, 1997). Pakistan is an agriculture country whose major reservoirs of poverty exist in rural areas. Rural individuals major activity is farming for which they are reliant for their living. Although the rural area is devoted to the production of basic commodities especially the staple food for which the income elasticity of demand is low. A reduction in poverty will shift production to other goods and services with greater income elasticity of demand or a significant increase in productivity.

The most important section of this study is to estimate the economic policies at the macro level, which plays a significant role in ensuring the process of economic growth and development translates itself into real improvements in people living standard, not just reducing poverty and meeting minimum nutritional needs but ensuring adequate access to education, health services so as to combat early mortality, high rate of disease, and very high levels of illiteracy. . The poor in Pakistan like all human beings have a innovative potential and can increase welfare and output in the economy yet being provided by basic necessities. The paper explores the influence on poverty of factors such as agriculture growth rate, economic growth, unemployment rate, inflation rate, remittances, per capita income and the development expenditure on social services. Macroeconomic policies are not only significant in altering economic performance, in terms of increasing efficiency and growth trends, but also ensure more equitable distribution of gains from economic development. The paper provides analysis and possible public action to address the poverty crisis in Pakistan.

[1] Means treasury which can be used as a subsidies to the poor.

[2] An Islamic levy of 2.5 percent of the total wealth paid by the every individual those who have minimum wealth equal 87 grams of gold.

[3] An Islamic levy of 10 percent of the gross produce of non irrigated land and the 5 percent of irrigated land.

3. Economic Literature Review

Despite significant improvements extreme poverty is still dominant in developing countries. Close to one billion people live on less than $1 per day at purchasing power parity and some 2.7 billion i.e over 40% of the world population live on less than $2 a day[4]. Elimination of extreme poverty and high and even income inequality are the core problems of developmental policies. The non economic manifestations of inequality including inequalities of power, prestige, status, gender, job satisfaction, working conditions, degree of participation, freedom of choice, self esteem, and freedom to choose also widened the gap of poverty (Todaro 2006).

In 1970s the increase in the migration of rural labor largely to the Middle Eastern countries has a significant impact on the rural wages in order to relieve poverty. First most of the emigrants were below the poverty level, but after migration no such households can be ranked as poor. Secondly the emigrants send part of their income to help his needy family which created public security in the private sector (Gilani et al, 1981).

The first attempt to explain poverty trends in Pakistan with the help of macro determinants was made by (Amjad and Kemal 1997). The influence of macroeconomic factors on poverty such as economic growth, agriculture growth, and terms of trade for agriculture sector, inflation rate, industrial production, employment, wages, remittances, subsidies and the tax structure along with analyzing the impact of structural adjustment programmes on poverty alleviation, concludes that remittances and employment are the major variables explaining changes in poverty. The paper also pursued that polices under structural adjustment programme tend to increase poverty due to declining growth rates, withdrawal of agriculture subsidies, increase in indirect taxes, decline in employment and public expenditure on social services. The paper poverty eradication strategy was the promotion of informal sector enterprises.

Market plays an important role in livelihood of inadequate. If countries adopted policies based on market forces, abolishing government marketing and commodity boards, making domestic agriculture trade more liberal. Poor farm owners will have more access to the demands of markets and susceptible to their volatility (IFAD, 2001). Pakistan is an agriculture utilizing majority of the rural population for their living. The alterations of Pakistan economy withrespect to agriculture are shown in Table 1.

[4] World Bank uses poverty reference lines set at US $1 and US $2 per day in 1993.
See Todaro 2006 p.208-209

Table 1. Role of Agriculture in Pakistan Economy

Year	Percentage share of Agriculture in GDP	Percentage of Rural labor Force	Percentage of Rural Population
1960	5.1	68	85
1970	2.4	59	78
1980	5.4	57	74
1990	4.4	52	71
2000	3.2	47	69
2008	4	36	64

Source: Pakistan Economic Survey (Various Issues).

The importance of agriculture sector is declining but its contribution is significant still it engages 36 percent of the country labor force. A vast majority of population which is 64 percent depends on agriculture for its income.

There should be micro and small scale enterprises related to livestock and agriculture sector to alleviate rural poverty in Pakistan (Chaudhry, Malik and Ashraf, 2006). The rural poverty tends to be strongly correlated with the lack of assets in rural area which is the principal asset in the rural economy of Pakistan. The household data set available PHIS 2001-2002 highlights that discrimination in inequality of field ownership threats to be found as dominant issues to promote poverty degree. The lower revenue scale were found to be higher having unequal field ownership for cultivation of crop as compared with the non farming household. (Anwar et al, 2004). The result shows that 42.97 percent rural population was poor in 2001-2002. This implies that out of 145 million 55 million individual were poor in Pakistan of these 37.4 million individuals were located in rural areas. The paper investigate that unskewed distribution of land, fair and enforceable tenancy contract, rural public work programmes and access to credit is critical in reducing Pakistan rural poverty.

The agriculture sector of pakistan is facing problems of rising population, shrinking argiculture land depletion of water reservoirs, inadequate infrastructure and wide spread land degradation. The Pakistan economic indicators are shown in Table 2.

Table 2. Economic indicators of Pakistan

Fiscal Year	Population Growth Rate %	GDP Growth Rate %	Agriculture Growth Rate %
1993-94	2.28	4.4	5.20
1994-95	2.24	5.1	6.60
1995-96	2.40	6.6	11.72
1996-97	2.34	1.7	0.12
1997-98	2.36	3.5	4.52
1998-99	2.23	4.2	1.95
1999-00	2.20	3.9	6.09
2000-01	2.11	1.8	2.20
2001-02	2.13	3.1	-0.10

Fiscal Year	Population Growth Rate %	GDP Growth Rate %	Agriculture Growth Rate %
2003-04	2.40	7.5	2.30
2004-05	2.26	8.6	6.70

Source: (Bhutto W. A, Bazmi A. A, 2007)

The increase in population is gradually depleting natural resources putting major constrains on the efforts to alleviate poverty (Bhutto W. A, Bazmi A. A, 2007). It is evoke that to relieve poverty the productiveness in farming sector can be enhanced through the provision of series of inputs which includes easy access to micro finance for small farmers, availability of quality fertilizers, pesticides, harvest services, tractor, and the farmer education. The author concluded that rapid rise in populace needs to be controlled to improve farming productiveness having considerable impact on poverty in Pakistan rural areas.

The growth alone cannot decrease poverty particularly when the inequality is deteriorating at the same time (Cheema Raza A, and Maqbool H. Sial, 2010). Both play an important role in alleviating poverty. If inequality declines during the progression process some part of progression is counteract. The paper suggests that policies geared towards poverty alleviation must include strategies to improve income distribution and sustainable economic growth. High poverty elasticity with respect to inequality measures confirms the importance of inequality in poverty reduction efforts (Jamal H, 2006). The author explores the linkage between poverty, growth and inequality in the context of Pakistan by using the time series macroeconomic data for the period 1979 to 2002. The empirical analysis shows that inflation, sectoral wage gap, progressive tax, terms of trade in favor of manufacturing exacerbate inequality, investment and development expenditure on social services, play a significant role in reducing inequality as shown in Table 3. The results show positive correlation between GDP per capita and income inequality. Growth no doubt plays important role in poverty alleviation but for development agenda inequality also matters. Distributional concerns could be the basis for new policy plan to nurture progression with equity. The degree of inequality affects the degree of poverty as well the growth elasticity of poverty.

Table 3. Determinants of inequality (Gini Coefficient)

Explanatory Variables	Coefficient	t-statistics	Signifinance
GDP Per Capita	0.081	3.59	0.0027
Inflation (Food Prices)	0.088	10.49	0.0000
Manufacturing to Agriculture Wage Gap	0.023	3.71	0.0021
Direct to Indirect Tax Ratio	-0.024	-5.20	0.0001
Developmental Expenditure on Socail Services	-0.015	-2.07	0.0566
Investment	-0.037	-2.35	0.0329
Manufacturing to Agriculture Terms of Trade	0.046	1.90	0.0768

Source: Jamal H, 2006

The poor in Pakistan has creative potential, yet they being denied the minimum of food, basic necessities, such as education, heath, and employment opportunities (Hussain, A 2008). The paper argues that poverty is based in the institutional structure of community and state in Pakistan. The papers investigate that major government expenditure is on military, bureaucracy, while spending less on education, health and developmental purposes. The stable democratic government is the path to sustainable and equitable economic growth.

The Grameen bank of Bangladesh providing micro credit facility proved successful for rural poverty alleviation. Tiny collateral free loans were provided to the poor to judge their capacity to use that money and observe their behavior. The poor bring income in circulation to accelerate the growth of their wages that assisted them sleek their usage and demonstrated trusted in returning the borrowed money without any exceptions. Grameen is heading fast to the maximum poor and helped them against multifaceted poverty so it is desired in Pakistan through an effective institutional mechanism (Nabeel A. Goheer, 1999). Pakistan has implemented various structural adjustment and stabilization programmes most prominently in 1988-91, 1993-96, and 1997-2000 aimed at creating friendly market, reducing fiscal and balance of payment deficits. It contained rationalization of tariff structure, import liberalization, de-regulating investments, and foreign exchange, financial reforms, reduction in subsidies, and deprivation of public assets. These programmes fail to improve level of efficiency, and their impact on employment and poverty is uncertain (Kemal, A. R. 2001).

4. Methodolgy, Data, Model and Hypothesis

4.1. Methodology

The study examines the relationship between poverty and macroeconomic determinants of poverty using the data for the years collected from Pakistan economic survey. The primary rationale of the study is to reduce the gap of income inequality in the society, improve standard of living by creating access to education, health services, reducing mortality rate and provide productive employment opportunities in labor surplus economy investing in human resource development and development in social services. Macroeconomic Indicators i.e. Explanatory variables are GDP gross domestic product growth rate, ARG agriculture growth rate, UNEMP unemployment rate, CPI consumer price index, REMT remittances, PCI per capita income, and DE developmental expenditure on social services. The dependent variable is the GINI gini coefficient.

4.2. Data Source

The quantitative data has been used for this study. The data used in empirical analysis are sourced from Pakistan economic survey and the Pakistan ministry of finance. Cross sectional data of poverty and its macroeconomic determinants is

estimated for the period from 1994-95 to 2005-06. The data for agriculture growth rate, unemployment rate, and consumer price index, are in terms of percentage of gross domestic product. The data of remittances is in million dollars, per capita income and developmental expenditure in million rupees.

4.3. Model and Hypothesis

Multiple regression analysis is used with respect to correlates of poverty i.e. macroeconomic indicators. Multiple correlation measures the degree of association between dependent variable and the explanatory variables jointly. Following is the multiple regression model specification:

$$G_i = \beta_1 + \beta_2 GDP_i + \beta_3 ARG_i + \beta_4 UNEMP_i + \beta_5 CPI_i + \beta_6 REMT_i + \beta_7 PCI_i + \beta_8 DE_i + e_I$$

OLS Ordinary least square estimation is used to estimate the parameters of multiple variable regression model.

The basic hypothesis which we are testing is in terms of even distribution of income in the economy promoting economic growth. For this overall significance of the multiple regression model is tested. The joint hypothesis for overall significance is given by

Ho: Improvements in macroeconomic determinants do not lead to equal distribution of income.

H_I: Improvements in macroeconomic determinants will lead to equal distribution of income.

$$\text{Ho: } \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 = 0$$
$$H_I: \beta_2 = \beta_3 = \beta_4 = \beta_5 = \beta_6 = \beta_7 = \beta_8 \neq 0$$

The analysis of variance (ANOVA) is used to test the overall significance of the joint hypothesis: The F-statistics. After testing the overall significance of multiple regression model the macroeconomic variables are individually tested against the income inequality. The hypothesis testing for individual regression coefficients are shown in Table 4

Table 4. Hypothesis Testing for Individual Regression Coefficients

Macroeconomics Indicators	
GDP Growth Rate	**Hypothesis**
Ho: Increase in GDP growth do not alleviates poverty H_I: Increase in GDP alleviates poverty	$H_O: \beta_2 = 0$ $H_I: \beta_2 \neq 0$
Agriculture growth rate	**Hypothesis**

Macroeconomics Indicators	
H_O: Increase in agriculture growth do not alleviates poverty H_I: Increase in agriculture growth alleviates poverty	H_O: $\beta_3 = 0$ H_I: $\beta_3 \neq 0$
Unemployment rate	**Hypothesis**
H_O: Employment opportunities do not declines poverty H_I: Employment opportunities declines poverty	H_O: $\beta_4 = 0$ H_I: $\beta_4 \neq 0$
Consumer price index	**Hypothesis**
Ho: Decrease in Inflation do not decline poverty H_I: Decrease in Inflation declines poverty	H_O: $\beta_5 = 0$ H_I: $\beta_5 \neq 0$
Remittances	**Hypothesis**
Ho: Foreign remittances do not reduces poverty H_I: Foreign remittances reduce poverty	H_O: $\beta_6 = 0$ H_I: $\beta_6 \neq 0$
Per Capita Income	**Hypothesis**
Ho: Increase in per capita income do not reduces poverty H_I: Increase in per capita income reduces poverty	H_O: $\beta_7 = 0$ H_I: $\beta_7 \neq 0$
Developmental Expenditure	**Hypothesis**
Ho: Flow of developmental expenditure will not alleviates poverty H_I: Flow of developmental expenditure will alleviate poverty	H_O: $\beta_8 = 0$ H_I: $\beta_8 \neq 0$

The individual testing is through usual T-Test. The econometric problems multicollinearity is detected through variance inflation factor while autocorrelation is tested through Durban Watson statistics.

5. Results and Discussion

The data is analyzed through Gretl and SPSS software. Table 5 shows the elasticity in income inequality with respect to various macroeconomic determinants. The overall model is significant as P - value is less than 0.05. This suggests that improvement in macroeconomic determinants have the ability to alleviate poverty.

Table 5. ANOVA of Independent Variables

Model	Sum of Square	df	Mean square	F	Sig
Regression	0.027	7	0.004	13.91	0.013
Residual	0.001	4	0.000		
Total	0.028	11			

Predictors: (Constant): GDP, ARG, UNEMP, CPI, REMMT, PCI, DE
Dependent Variable: GINI

Table 6 shows the coefficient of determination R^2. Its shows that the variations in the macro economic determinants have 95 percent variation in reducing the income inequality.

Table 6. Model Summary

R	R square	Adjusted R Square	Std. Error of the estimate	Durban-Watson
0.979	0.958	0.886	0.01720	2.94

Predictors: (Constant): GDP, ARG, UNEMP, CPI, REMMT, PCI, DE
Dependent Variable: GINI

The Durban Watson test statistics lies close to zone of indecision i.e. in between 4 - du and 4 - dl reflecting no conclusion. The results regarding the individual tested variable need to be interpreted with extreme caution.

Table 7. OLS Estimation of Individual Variables

	Coefficient	Std. Error	t-ratio	P-Value	
Const	0.947137	0.076702	12.3283	0.00025	***
GDP	-0.0153972	0.00604146	-2.5486	0.06340	*
ARG	0.00153362	0.00278865	0.5500	0.61162	
UNEMP	-0.0464492	0.00345016	-4.0254	0.01579	**
CPI	-0.00791533	0.011539	-2.2942	0.08347	*
REMT	8.88373e-05	1.32364e-05	6.7116	0.00257	***
PCI	-7.27051e-06	1.32774e-06	-5.4758	0.00541	***
DE	-0.046079	0.0134435	-3.4276	0.02659	**

Dependent Variable: GINI
Note: *Indicates that the coefficients are significant at the 1 percent level.
**Indicates that the coefficients are significant at the 5 percent level.
***Indicates that the coefficients are significant at the 10 percent level

The variables developmental expenditure, per capita income, and GDP growth rate have correct sign according to their hypothesis. Remittances, consumer price index, unemployment rate and agriculture growth rate have opposite sign with income inequality which put grounds for further assessment and cross country research. Though consumer price index, unemployment rate are significant while remittances highly significant. The strongest message which emerges from the result is that beside per capita income, and GDP growth rate, the flow of remittances is most significant in explaining changes in poverty levels in the economy. The magnitude of the effect of developmental expenditure is also significant in alleviating

poverty by providing employment through public works and indirectly crowding in private investment. The fact that agriculture sector is not significant is because agriculture sector contribution in economy is more but its income generation is less as compared with the service sector. The empirical result suggests that remittances, per capita income, developmental expenditure, and decline in unemployment and GDP growth have significant effect to alleviate poverty in Pakistan.

Table 8 shows that no severe multicollinearity exists except for remittances whose value is a bit high from 10. The other weakness may be the limited number of observation. The variables reinforce each other impact in a significant manner. However running any multiple variable regressions, given the number of observations, would not be meaning.

Table 8. Variance Inflation Factors

Mimimum Possiblevalue = 1.0 Values > 10.0 may indicate a collinearity problem	
GDP	6.463
ARG	4.157
UNEMP	5.506
CPI	5.364
REMMT	10.164
PCI	5.713
DE	5.420

6. Conclusion and Future Implications

Poverty reduction has been prior for development policy. Increase in per capita income is the main tool for fighting poverty. In Pakistan the benefit of economic growth first goes to rich and in the phase two the poor starts to benefit when the ruling class starts spending their gain. More equal distribution of income and asset can foster economic growth, where high inequality can retard it. Inflation in food prices exacerbates poverty. The high rate of inflation particularly above the level of 10 % hurts the poor. The government needs to control inflation rate. Public expenditure on health, education and nutrition increases the human capital endowment of the poor and affects on their empowerment. Growth in investment is essential to generate employment opportunities. Public investment by providing infrastructure plays a significant role in reducing gap between income inequalities. From the last few years the corruption level in Pakistan is significantly increasing. The tax structure is seriously flawed hammering the poor segment of the society. The increasing imbalance between government revenue and government expenditure has resulted it public debt, reduction in investment and decreasing the employment opportunities. There is a need to empowering poor access to the market, land for the landless poor, access to microfinance, heath policy for the poor, education for

development, institutional policies stabilizing crop sector growth, sustainable growth in manufacturing sector in order to eliminate rural poverty in Pakistan. One of the major reasons for rural poverty is their large household; government must accelerate efforts to control the population growth rate.

Another important factor for alleviating rural poverty is the developmental expenditure on social services, especially in the rural areas. The social action programmes need to be assessed to increase human development providing a lot of white collar jobs. There is a need to create potential for investment opportunities in Pakistan. The investment projects should be beneficial for the poor segment of the society. The labor force of Pakistan needs to be transformed into skilled labor through promoting human resource development. Heavy load shedding in the rural area have put majority of the rural labor force jobless.

Remittances play a significant role is reducing income inequality in Pakistan but they are not speculated to might work well in the long term as they are decreasing along with the countries strict visa regime. The power shortage has increased the unemployment especially among the unskilled labor working in the informal sector. The government needs to take presumptive measures to increase the electricity generation. If no such action is taken against the power production it will badly hurts the economy in the future. Per capita income needs to be improved to alleviate poverty in both rural and urban sector of the economy.

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TESTING THE RANDOM WALK HYPOTHESIS FOR EMERGING MARKETS: EVIDENCE FROM LINEAR AND NON-LINEAR UNIT ROOT TESTS

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Abstract

In this study, the random walk hypothesis for emerging markets has been tested. First of all, Harvey et. al. (2008) linearity test was made in this study where different time intervals were handled. ADF (1979) unit root test was made to the linear series in order to test the efficiency of the market based on the results of the linearity test and in stock exchanges in India and Russia where Brazil and China stock markets are not efficient, it was concluded that the efficient market hypothesis is valid. In addition, these results were supported by Kapetanios (2005) unit root test that allowed more than two breaks and structural breaks were endogenously. For non-linear series, Kapetanios, Shin and Snell (2003) (KSS) unit root tests were made and the efficient market hypothesis in Argentina, Indonesia, Mexico and Turkey is valid. In addition, it was found with the help of a time varying KSS unit root test which also takes the seasonal changes into account that activity at different periods for all markets was concerned but this efficiency was not valid at all periods for any market. This result supports the idea which was about the findings on the validity of the random walk hypothesis for many developing countries in previous studies that were not clear.

Keywords: Market Efficiency, Unit Root, Time Varying, Random Walk, Linearity

Jel Codes: G14, G15

1. Introduction

According to the efficient markets hypothesis, markets reflect all the information available to investors and their price fluctuations are not predictable (Markowitz, 1959, 1970; Samuelson, 1965). The price and returns of financial assests formed a basis in the formation of the concept of efficient markets. According to the efficient markets hypothesis, there are a large number of buyers and sellers in the stock market yet none of them can not affect share prices. All the information can be reached by every investor at the same costs (Alagidede and Panagiotidis, 2009) and the asymmetric information is not concerned in these markets. In addition, the operating costs are very low or zero (Saraç, 2013).

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However, some criticism in recent years has been made for the efficient market hypothesis. As it is known, many processes of trading in the markets have been made. The people that make these processes are not trained or experienced finance professionals (Peterson, 2012). This situation also brought the question about efficient market hypothesis with the new findings that detected the presence of anomalies and extreme volatility in the market (Dima and Miloş, 2009). According to the theory of behavioral finance, rational theories will not be sufficient in explaining investor behaviours and psychological and sociological factors should be taken into account that may affect the behaviours of individuals (Karan, 2011). These discussions about efficient markets require examination of the development of the markets.

A feature owned by a series in a long term may emerge with the determination of the affect of the previous variable. Although various methods have been developed in this regard, the most commonly used is unit root tests (Tarı, 2012: 386). If a serie has a unit root, a random walk hypothesis is meant to be valid for that series (Gujarati, 2011: 718).

2. Literature Review

In literature, market efficiency theory is tested by variance ratio test, run test, autocorrelation test, linear and non-linear unit root test.

The first study on behalf of the efficient markets hypothesis that was a fundamental and building block of finance was made by Fama (1970). It was concluded from the study where an American stock market was examined that the random walk hypothesis is valid.

Borges (2008) examined the six European country with the help of ADF unit root test in his study and found that the random walk hypothesis was valid in all stock exhanges according to the monthly data but according to the daily data, only France, Germany and Spain showed random walk behaviour. Hamid et al (2010) examined 14 Asia Pacific country in the study where ADF test was used and concluded that this hypothesis was invalid. Lucey and Segot (2005) used KPSS unit root test in their study where they handled MENA countries and concluded that efficient market hypothesis was valid for Turkey and Israel that gave directions to the region. Khan and Vieito (2012) that used that test again examined the efficiency of stock unification process and while the stocks were not efficient in Portugal before unification and they became efficient after unification. Cooray and Wickremasinghe (2007) examind the South Asian countries in their studies and found that all countries except for Bangladesh were efficient in a weak form.

Hasanov and Omay (2007) used the KSS unit root test in their study that was non-linear. It was concluded from the study where 8 of developing European countries were examined that Bulgaria, Czech Republic, Slovakia and Hungary stock markets were efficient in a weak form. In addition, Karadağlı and Omay (2012) supported the analysis made for the same countries with non-linear panel unit root

test of Uçar-Omay (2009). Tan et. al. (2010) implemented the non-linear threshold unit root test to India, Pakistan and Sri Lanka. As a result of the study, it was concluded that this stock market was efficient not at all times but in certain periods. Özcan and Yılancı (2009) used BDS and KSS unit root tests in their studies where ISE was examined and reached a finding that random walk hypothesis was not valid for Turkey market. Lim et. al. (2008) used non-linear Hinich bi-correlation test (1996) in the study where they examined 10 Asian countries and concluded that the price mobility can be estimated. In another study on the Romaian stock market that is one of the developing countries. Dima et. al. (2007) concluded that the random walk hypothesis is valid.

Kim and Shamsuddin (2008) examined Asian countries and used the variance ratio test and concluded that market efficiency is related to the stage of development. In another study that examined the market efficiency with variance ratio test, Charles and Darne (2009) examined the Chinese stock markets and concluded that the markets with A type shares were more effective compared with the markets with B type shares. Hague et. al. (2011) examined the Pakistan stock markets and concluded that the random walk hypothesis showed no compliance. Hassan and Chowdhury (2008) examined Bangladesh markets in their studies and concluded that efficient market hypothesis is valid. Onour (2007) examined Sudan markets, Prinpong and Abayie (2007) examined Ghana markets and concluded that random walk hypothesis is not valid in both markets. Joshi and Bahadur (2005) examined Nepal markets and concluded that the markets in African countries are not efficient to support these findings.

In the study, Sasdharan examined (2009) the India stock market and seperated the 1991-2008 period to 4 depending on the political developments and analyzed them seperately. As a result of the run test, only the markets between 2003-2006 were efficient. Similarly, Emenike (2008) seperated 1985-2007 period for Nigerian market to 3 depending on political regimes but identified that markets were not efficient in any period.

As can be seen, so many studies were made about financial markets but there never occurred a judgment about the validity of random walk hypothesis. This study, unlike other studies never classified the series as they are linear or not linear. The linearity of the series were determined according to Harvey et. al. (2008) linerarity test. Following this conclusion, ADF (1979) for the series of linear countries and Kapetanios (2005) unit root tests for taking into account the structural breaks and KSS (2003) unit root test for non-linear series were used. In addition, in order to obtain more detailed results and to take structural breaks into account for the series that are non-linear, time-varying KSS unit root test was used.

3. Model

Kapetanios (2005), Zivot Andrews (1992) and Lumsdaine-Papell (1997) tests were developed and despite the unit root basic hypothesis, a new test that tests the hypothesis of stability of m refraction was developed. Thanks to this test,

determining a priori constraint of a break was eliminated. The researcher will determine the maximum breaking number with this test and the appropriate number of fracture will be determined endogenously. The model used in this test is as the following:

$$y_t = \mu_0 + \mu_1 t + \alpha y_{t-1} + \sum_{i=1}^{k} \gamma_i \Delta y_{t-i} + \sum_{i=1}^{m} \phi_i \mathrm{DU}_{i,t} + \sum_{i=1}^{m} \psi_i \mathrm{DT}_{i,t} + \epsilon_t$$

$$\mathrm{DU}_{i,t} = 1(t > T_{b,i}), \quad \mathrm{DT}_{i,t} = 1(t > T_{b,i})(t - T_{b,i})$$

Here, the basic hypothesis states that serie is unit rooted and alternative hypothesis states that serie is stationary.

$$\mathrm{H0}: \alpha = 1$$
$$\mathrm{H1}: \alpha: < 1$$

First of all the single fraction is sought during the whole sample for a given number of first breaking in the operation of this test and t statistics of α=1 hypothesis are obtained. Then, the minimum residual sum of square's the date of structural break on the model selected and the model is estimated by adding the date of the first break, the remaining parts of the second structural break between the date is required. T statistics are obtained for α=1 and the date of structural break is found by obtaining the minimum residual sum of squares. Finally, m is continued until getting the number of break. The appropriate break number is the number that gives minimum t statistic.

$$\mathrm{SSR} = \sum_{t=k+2}^{T} \left(y_t - \hat{\mu}_0 - \hat{\mu}_1 t + \hat{\alpha} y_{t-1} + \sum_{i=1}^{k} \hat{\gamma}_i \Delta y_{t-i} + \hat{\phi}_1 \mathrm{DU}_{1,t} + \hat{\psi}_1 \mathrm{DT}_{1,t} \right)^2$$

Star (1) model used for non-linear series can be indicated as follows:

$$\Theta(\theta;\ \mathrm{yt} - \mathrm{d}) \ = \ 1 - \exp(-\theta \mathrm{y2t} - \mathrm{d})$$
$$\mathrm{Yt} \ = \ \beta \mathrm{y} - 1 \ + \ \Upsilon \mathrm{yt} - 1 \Theta(\theta;\ \mathrm{yt} - \mathrm{d}) \ + \ \xi \mathrm{\Epsilon t}$$

Subsituting the exponential function in the model

$$\Delta \mathrm{yt} = {}^{\Phi}\mathrm{yt} - 1 + \Upsilon \mathrm{yt} - 1[1 - \exp(-\theta \mathrm{y2t} - \mathrm{d}) \ + \ \mathrm{\Epsilon t}$$

this model with constraints; Φ = 0 ve d = 1

$$\Delta \mathrm{yt} = {}^{\Phi}\mathrm{yt} - 1\,\{1 - \exp((-\theta \mathrm{y2t} - 1) \ + \ \mathrm{\Epsilon t}$$

Here are the basic unit of the series long-established hypothesis, the alternative hypothesis states that the series is stationary. This is an exponential transition autoregressive process. It is consistent with a stationary ESTAR process.

$$\mathrm{H0}: \theta \ = \ 0$$
$$\mathrm{H1}: \theta < \ 0$$

Despite unit root basic hypothesis, Kapetanios, Shin and Snell (2003) (KSS) unit root test serves to testing a non-linear process. This test is carried out for the entire range of observation. But sometimes, some of the periods of the examined series are stationary and some of the periods may have showed unit rooted behaviour. In such cases, the current KSS test results may be wrong and in order to analyze this situation, there is a need to use techniques that vary over time.

In order to perform time-varying KSS unit root test, a sample size up to n is selected. KSS unit root test is applied from the 1st element to nth element. In the second phase, KSS test is applied from 2nd element to n+1st element and this process is continued until the last element. All samples obtained after the application of test statistic is made is divided to a critical value that is %10 (-2.66) normally distributed and the obtained information is indicated in the chart. The values above the "1" line show the periods that are stationary and the values below show the periods that are not stable (Yılancı, 2013).

4. Data

In this study, ten of the developing countries in 2012 were discussed by IMF. 8 of them were expressed as the newly industrialized countries in 2011 (IMF, 2011). We could not reach the data that are equal so the number of observations with their start date and daily data are listed in the table below.

These data were obtained from www.ukfinance.yahoo.com address. Logarithmic transformations were taken before data were being inserted into the analysis.

Table 1: Data

Market	Date	Observation	Market	Date	Observation
Argentina	October-1996	4139	**India**	July-1997	3973
Brazil	April-1993	5010	**Mexico**	November-1991	5430
China	December-1990	5800	**Malaysia**	December-1993	4848
Indonesia	July-1997	3907	**Turkey**	January-1988	10992
Philippines	January-2000	3188	**Russia**	September-1995	4547

Instead of the series are analyzed as linear or non-linear, determining the linearities with linearity test is more appropriate approach. In this context, the results of Harvey et. al. Linearity Test (2008) in Table 2 are seen.

5. Empirical Results

Table 2: Results of Harvey et. al. Linearity Test

Market		Critical Values			Results
	W-Lam	%1	% 5	% 10	
Argentina	22.83	15.95	16.49	17.49	Non-Linear
Brazil	28.25	33.50	33.91	34.64	Linear
China	25.53	40.08	40.34	40.80	Linear
Indonesia	10.00	9.85	9.89	9.98	Non-Linear
Philippines	178.73	144.62	146.71	150.51	Non-Linear
India	2.79	11.07	11.36	1.88	Linear
Mexico	29.58	18.52	19.01	19.92	Non-Linear
Malaysia	704.27	372.44	386.10	411.59	Non-Linear
Turkey	50.18	0.01	0.02	0.04	Non-Linear
Russia	1.43	6.96	7.03	7.15	Linear

According to the Harvey Linearity test results, According to the test results, Brazil, China, India and Russia are linear stock markets and Argentina, Indonesia, the Philippines, Mexico, Malaysia and Turkey stock markets are not linear.

Table 3: Results of ADF Unit Root Test

	T Statistics (Intercept)	T Statistics (Trend and Intercept)
Brazil	-6.10 (0.00)	-6.82(0.00)
China	-3.28(0.015)	-3.48(0.04)
India	-0.49(0.89)*	-2.40(0.37)*
Russia	-1.83(0.36)*	-2.38(0.38)*

Here, the structure of which is a stationary random walk hypothesis of stock markets in Brazil and China is not valid and random walk hypothesis is valid in India and Russia stock markets with its rooted united structure. Furthermore, these results and structural breaks are determined as internal and was supported by Kapetanios (2005) unit root test. These results are shown in Table 4. Brazil and China are seen stable in every break, but India is unit rooted in all break, Russia is unit rooted in 1-2 break. Where in the nature of the Kapetanios test, 1 break is selected that is the smallest value of t and therefore the random walk hypothesis is valid for India Stock Market.

Table 4: Results of Kapetanios Unit Root Test

Breaks	Brazil	China	India	Russia
5	-8.73	-8.64	-6.87*	-8.84
4	-7.97	-8.38	-6.41*	-8.33
3	-7.46	-7.54	-5.50*	-7.91
2	-7.30	-7.29	-4.87*	-5.75*
1	-6.64	-5.68	-3.15*	-3.74*

Note: Critical Values are -8.34 for 5 breaks, -7.73 for 4 breaks, -7.00 for 3 breaks, -6.11 for 2 breaks, -5.08 for 1 break in 5% meaningfulness and taken from study of Kapetanios (2005) named "Unit-Root Testing Against The Alternative Hypothesis Of Up To M Structural Breaks"

When the KSS unit root test results in Table 5 are examined; Argentina, Indonesia, Mexico and Turkey stock markets are efficient in both stable and trend, Philippines stock market is not efficient in stable form but efficient in trend form.

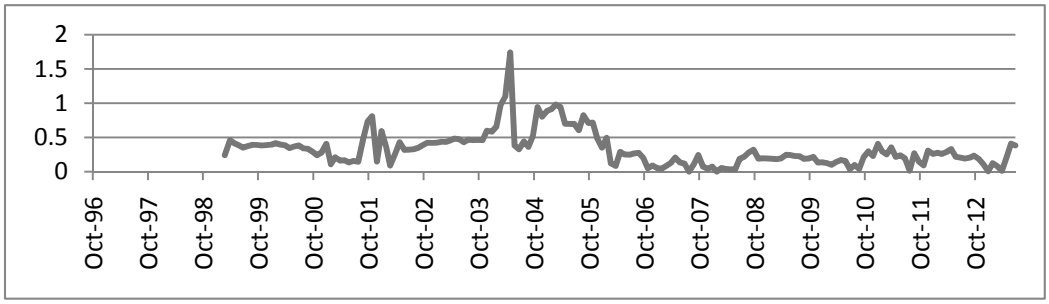
Table 5: Results of KSS Unit Root Test

	T Statistics (Intercept)	T Statistics (Trend and Intercept)
Argentina	-1.96*	-1.96*
Indonesia	-1.74*	2.09*
Philippines	2.73	2.74*
Mexico	2.11*	2.11*
Malaysia	3.62	3.67
Turkey	-1.71*	-1.76*

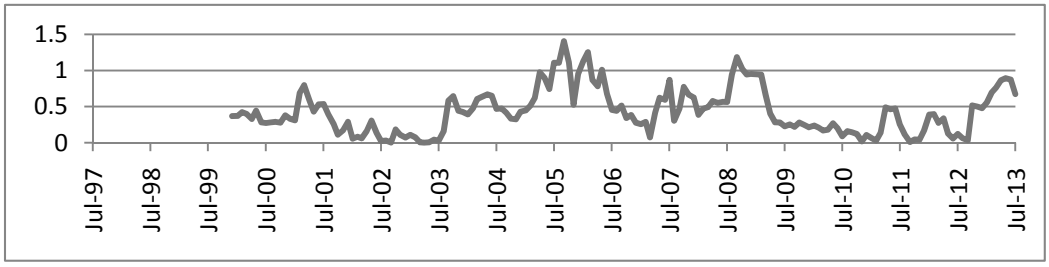
Note: Asymptotic critical values for the KSS test statistics at 1%, 5%, and 10% significance levels are 3.48, 2.93, and 2.66 for the test with intercept only, and 3.93, 3.40, and 3.13 for the test with intercept and trend, respectively. The critical values are taken from Table 1, Kapetanios et al. (2003, pp. 364).

Figure 1: Results of Time Varying KSS Unit Root Test

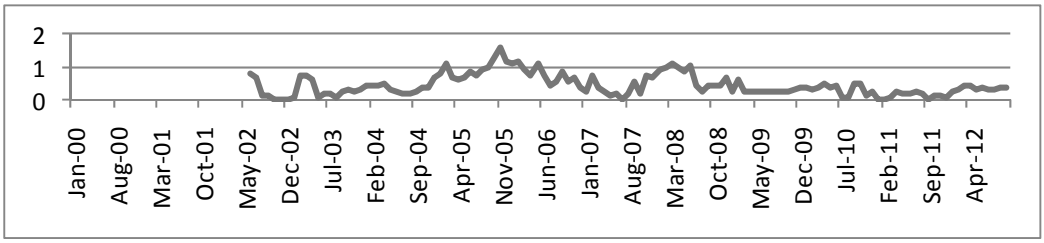
Argentina



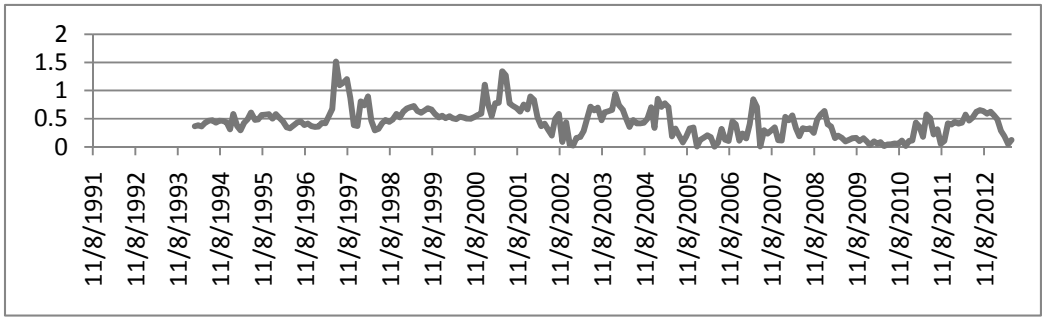
Indonesia



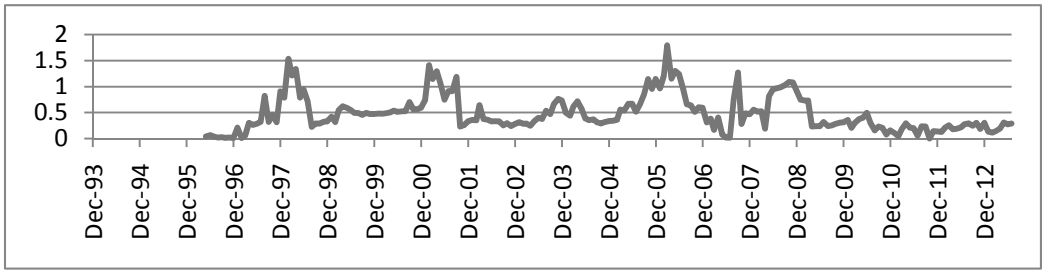
Philippines



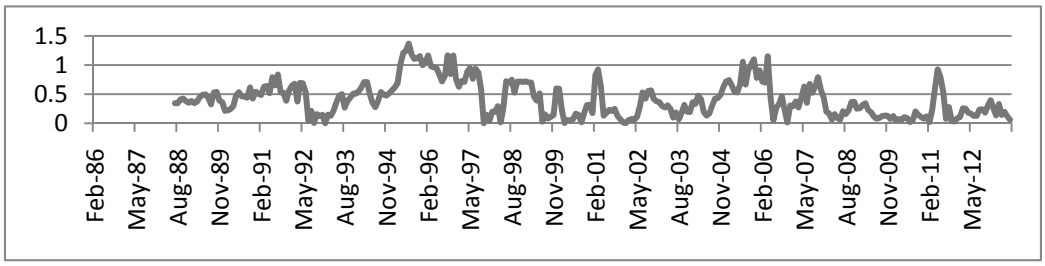
Mexico



Malaysia



Turkey



In terms of time-varying KSS unit root test results, the entire series are efficient in some quarters, but this situation is reflected in all periods. Also in support of KSS unit root test results, Malaysian stock exchange chart "1" on the line is greater than the observed periods of other exchanges.

6. Conclusion

In this study, developing countries, Argentina, Brazil, China, Indonesia, the Philippines, India, Mexico, Malaysia, Turkey, Russia and stationaryties exchanges through various unit root tests and the random walk hypothesis is examined and the current is detected by the stock exchanges. In order to achieve this goal, Harvey et al. (2008) developed by the help of the linearity test, determined whether series are linear. Then, the linear series ADF (1979), and as it determines endogenously structural breaks Kapetanios (2005) unit root tests, the non-linear series of KSS (2003) unit root and structural break-out, in a similar manner to take into account the effects of seasonal unit root tests are applied taking into account the time-varying KSS tests.

According to the ADF unit root test results, India and Russia stock markets are seen as efficient from linear series and Brazil and China stock markets are not efficient. These results were supported by Kapetanios (2005) unit test results. Argentina, Indonesia, Mexico and Turkey's stock markets are efficient and Philippines and Malaysia stock markets are not efficient as can be seen from non-linear series.

These results are supported by several studies in the literature but they are not supported by other studies. At this point, the different periods can give different results for the random walk hypothesis and the structural breaks have an importance. Compared to the studies in the literature for this purpose; the study allocated to the operation of the stock market examined by Khan and Vieto (2012) and the study of Tan et al (2010) and the study of Sasidharan (2009), examined four different periods according to the political events show that the efficient market hypothesis gives different results in different periods. These findings support the results of our time-varying KSS unit root test. In conclusion, technical analysis for the prediction of the future price of all stock exchanges will be useful not in all periods but only in some periods.

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SELECTING DIFFERENT INDUSTRIAL COMPETITORS INFLUENCE THE RISK LEVEL OF VIETNAM TELECOMMUNICATION AND EDUCATION COMPANIES

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Abstract

This research shows marketing factors such as business competitors could affect business market risk, from a quantitative point of view. Using a two (2) factors model, this research paper estimates the impacts of not only the size of firms' competitors, but also leverage in the telecommunication and education industry, on the market risk of 18 listed companies in this category.

This paper founds out that the risk dispersion level in this sample study could be minimized in case the competitor size is approximately the same (measured by equity beta var of 0,283) and leverage down to 20%.

Beside, the emprical research findings show us that when financial leverage increases up to 30%, max asset beta value decreases from 0,393 to 0,386 in case the size of competitor doubles or slightly smaller.

Last but not least, this paper illustrates calculated results that might give proper recommendations to relevant governments and institutions in re-evaluating their policies during and after the financial crisis 2007-2011.

Keywords: risk management, competitive firm size, market risk, asset and equity beta, education and telecommunication industry

JEL Classification : M00, G3, M3

1. Introduction

In marketing and business, choosing competitors might affect business strategies, esp., during the crisis period 2007-2009 in which telecommunication and education firms experience many risks, although Viet Nam telecommunication and education industry is considered as one of active economic sectors, which has some positive effects for the economy.

This paper is organized as follow. The research issues and literature review will be covered in next sessions 2 and 3, for a short summary. Then, methodology and conceptual theories are introduced in session 4 and 5. Session 6 describes the data in

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empirical analysis. Session 7 presents empirical results and findings. Next, session 8 covers the analytical results. Then, session 9 presents analysis of industry. Lastly, session 10 will conclude with some policy suggestions. This paper also supports readers with references, exhibits and relevant web sources.

2. Research Issues

For the estimating of impacts of the selection of different industrial competitors on the risk measured by beta for listed telecommunication and education companies in Viet Nam stock exchange, research issues will be mentioned as following:

Issue 1: Whether the selection of different competitors makes the risk level of telecommunication and education industry firms under the different changing scenarios of leverage increase or decrease so much.

Issue 2: Whether the selection of doubling size competitor makes the dispersion of beta values become large in the different changing scenarios of leverage in this industry.

3. Literature review

Goldsmith (1969), Mc Kinnon (1973) and Shaw (1973) pointed a large and active theoretical and empirical literature has related financial development to the economic growth process.

Gosh and Morita (2007) pointed although collaboration between competitors reduces the distinctiveness between their products, it increases the distinctiveness between their products and the non-collaborators' product. Simkovic (2011) found out competition between mortgage securitizers led to a race to the bottom on mortgage underwriting standards that ended in the late 2000s financial crisis. Li and Netessin (2011) stated competition has become an important theme in the operations management literature and, according to recent theoretical and empirical work, the key finding is that firms tend to overstock or overproduce under competition.

Last but not least, Ana and John (2013) Binomial Leverage – Volatility theorem provides a precise link between leverage and volatility. Chen et all (2013) supports suspicions that over-reliance on short-term funding and insufficient collateral compounded the effects of dangerously high leverage and resulted in undercapitalization and excessive risk exposure for Lehman Brothers.

4. Conceptual theories

Industrial competitor theories

A firm can face many kinds of risk: operational risk or financial risk. These risks lead to lower production output and create opportunities for competitors to enter and expand their market share.

Business risks are affected by some variables including: sales volume, unit price and input costs. And competiton can affect these variables; so, it has impacts on business risks.

5. Methodology

In this research, analytical research method is used, philosophical method is used and specially, scenario analysis method is used. Analytical data is from the situation of listed commercial electric industry firms in VN stock exchange and applied current tax rate is 25%. And the below table 1 shows us three different cases of selecting competitors.

Finally, we use the results to suggest policy for both these enterprises, relevant organizations and government.

Table 1 – Analyzing market risk under three (3) scenarios of changing competitors (Made by Author)

Order No.	Company Stock code	Competitor size as current	Competitor size slightly smaller	Competitor size double
1	ECI			
2	INN			
3	PTP			
4	DHI			
5	IHK	TPH as comparable	IN4 as comparable	SGD as comparable
6	HTP			
7	TPH			
8	IN4	ECI as comparable	ECI as comparable	DAD as comparable
9	ADC	DHI as comparable	HEV as comparable	DAE as comparable
10	HST			
11	SGD			
12	DAE			
13	HEV			
14	ALT			
15	EFI			
16	EID			
17	DAD			
18	SED			

6. General Data Analysis

The research sample has total 18 listed firms in the telecommunication and education industry market with the live data from the stock exchange.

Firstly, we estimate equity beta values of these firms and use financial leverage to estimate asset beta values of them. Secondly, we change the competitors from what reported in F.S 2011 to those with size doubling and reducing slightly to see the sensitivity of beta values. We found out that in case leverage up 30%, asset beta mean values increase if competitor size doubles and decrease if competitor size is smaller (correlated with the competitor size). Also in 3 scenarios of different leverage and current competitors, we find out equity beta mean values (0,671, 0,655 and 0,682) are moving in the opposite direction with the leverage. Leverage degree changes definitely has certain effects on asset and equity beta values.

7. Empirical Research Findings and Discussion

In the below section, data used are from total 18 listed telecommunication and education industry companies on VN stock exchange (HOSE and HNX mainly). In the scenario 1, current financial leverage degree is kept as in the 2011 financial statements which is used to calculate market risk (beta) whereas competitor size is kept as current, then changed from double size to slightly smaller size. Then, two (2) FL scenarios are changed up to 30% and down to 20%, compared to the current FL degree. In short, the below table 1 shows three scenarios used for analyzing the risk level of these listed firms.

Market risk (beta) under the impact of tax rate, includes: 1) equity beta; and 2) asset beta.

Table 1 – Analyzing market risk under three (3) scenarios (Made by Author)

	FL as current	FL up 30%	FL down 20%
Competitor size as current	Scenario 1	Scenario 2	Scenario 3
Competitor size slightly smaller			
Competitor size double			

7.1 Scenario 1: current financial leverage (FL) as in financial reports 2011 and competitor size kept as current, slightly smaller and double

In this case, all beta values of 18 listed firms on VN telecommunication and education industry market as following:

Table 2 – Market risk of listed companies on VN telecommunication and education industry market under a two factors model (case 1) (source: VN stock exchange 2012)

Order No.	Company stock code	Competitor size as current		Competitor size slightly smaller		Competitor size double	
		Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)
1	ECI	0,708	0,527	0,708	0,527	0,708	0,527
2	INN	0,195	0,104	0,195	0,104	0,195	0,104
3	PTP	-0,524	-0,251	-0,524	-0,251	-0,524	-0,251
4	DHI	0,740	0,547	0,740	0,547	0,740	0,547
5	IHK	0,514	0,295	0,303	0,174	0,698	0,400
6	HTP	1,091	0,846	1,091	0,846	1,091	0,846
7	TPH	0,801	0,356	0,801	0,356	0,801	0,356
8	IN4	0,473	0,284	0,473	0,284	0,418	0,251
9	ADC	0,425	0,214	0,363	0,183	0,400	0,201
10	HST	-0,042	-0,029	-0,042	-0,029	-0,042	-0,029
11	SGD	1,089	0,581	1,089	0,581	1,089	0,581
12	DAE	0,696	0,275	0,696	0,275	0,696	0,275
13	HEV	0,633	0,434	0,633	0,434	0,633	0,434
14	ALT	0,759	0,607	0,759	0,607	0,759	0,607
15	EFI	2,056	1,941	2,056	1,941	2,056	1,941
16	EID	1,210	0,874	1,210	0,874	1,210	0,874
17	DAD	0,625	0,423	0,625	0,423	0,625	0,423
18	SED	0,634	0,292	0,634	0,292	0,634	0,292

7.2. Scenario 2: financial leverage increases up to 30% and competitor size kept as current, slightly smaller and double

If leverage increases up to 30%, all beta values of total 18 listed firms on VN telecommunication and education industry market as below:

Table 3 – Market risks of listed telecommunication and education industry firms under a two factors model (case 2) (source: VN stock exchange 2012)

Order No.	Company stock code	Competitor size as current		Competitor size slightly smaller		Competitor size double	
		Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)
1	ECI	0,708	0,473	0,708	0,473	0,708	0,473
2	INN	0,195	0,077	0,195	0,077	0,195	0,077
3	PTP	-0,524	-0,169	-0,524	-0,169	-0,524	-0,169

4	DHI	0,740	0,489	0,740	0,489	0,740	0,489
5	IHK	0,414	0,184	0,202	0,090	0,563	0,250
6	HTP	1,091	0,772	1,091	0,772	1,091	0,772
7	TPH	0,801	0,223	0,801	0,223	0,801	0,223
8	IN4	0,392	0,189	0,392	0,189	0,346	0,166
9	ADC	0,312	0,110	0,267	0,094	0,294	0,104
10	HST	-0,042	-0,025	-0,042	-0,025	-0,042	-0,025
11	SGD	1,089	0,429	1,089	0,429	1,089	0,429
12	DAE	0,696	0,148	0,696	0,148	0,696	0,148
13	HEV	0,633	0,374	0,633	0,374	0,633	0,374
14	ALT	0,759	0,561	0,759	0,561	0,759	0,561
15	EFI	2,056	1,906	2,056	1,906	2,056	1,906
16	EID	1,210	0,773	1,210	0,773	1,210	0,773
17	DAD	0,625	0,363	0,625	0,363	0,625	0,363
18	SED	0,634	0,189	0,634	0,189	0,634	0,189

7.3. Scenario 3: leverage decreases down to 20% and competitor size kept as current, slightly smaller and double

If leverage decreases down to 20%, all beta values of total 18 listed firms on the telecommunication and education industry market in VN as following:

Table 4 – Market risk of listed telecommunication and education industry firms under a two factors model (case 3) (source: VN stock exchange 2012)

Order No.	Company stock code	Competitor size as current		Competitor size slightly smaller		Competitor size double	
		Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)	Equity beta	Asset beta (assume debt beta = 0)
1	ECI	0,708	0,564	0,708	0,564	0,708	0,564
2	INN	0,195	0,123	0,195	0,123	0,195	0,123
3	PTP	-0,524	-0,305	-0,524	-0,305	-0,524	-0,305
4	DHI	0,740	0,586	0,740	0,586	0,740	0,586
5	IHK	0,577	0,380	0,377	0,248	0,784	0,516
6	HTP	1,091	0,895	1,091	0,895	1,091	0,895
7	TPH	0,801	0,445	0,801	0,445	0,801	0,445
8	IN4	0,524	0,357	0,524	0,357	0,463	0,315
9	ADC	0,495	0,298	0,423	0,255	0,466	0,280
10	HST	-0,042	-0,032	-0,042	-0,032	-0,042	-0,032
11	SGD	1,089	0,683	1,089	0,683	1,089	0,683
12	DAE	0,696	0,359	0,696	0,359	0,696	0,359
13	HEV	0,633	0,474	0,633	0,474	0,633	0,474
14	ALT	0,759	0,637	0,759	0,637	0,759	0,637
15	EFI	2,056	1,964	2,056	1,964	2,056	1,964

16	EID	1,210	0,941	1,210	0,941	1,210	0,941
17	DAD	0,625	0,464	0,625	0,464	0,625	0,464
18	SED	0,634	0,360	0,634	0,360	0,634	0,360

All three above tables and data show that values of equity and asset beta in the case of increasing leverage up to 30% or decreasing leverage degree down to 20% have certain fluctuation.

8. Comparing statistical results in 3 scenarios of changing leverage:

Table 5 - Statistical results (FL in case 1) (source: VN stock exchange 2012)

	Competitor size as current			Competitor size slightly smaller			Competitor size double		
Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	2,056	1,941	0,115	2,056	1,941	0,115	2,056	1,941	0,115
MIN	-0,524	-0,251	-0,273	-0,524	-0,251	-0,273	-0,524	-0,251	-0,273
MEAN	0,671	0,462	0,209	0,656	0,454	0,202	0,677	0,466	0,212
VAR	0,2872	0,2133	0,074	0,2955	0,2174	0,078	0,2880	0,2130	0,075
Note: Sample size : 18 firms									

Table 6 – Statistical results (FL in case 2) (source: VN stock exchange 2012)

	Competitor size as current			Competitor size slightly smaller			Competitor size double		
Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	2,056	1,906	0,149	2,056	1,906	0,149	2,056	1,906	0,149
MIN	-0,524	-0,169	-0,355	-0,524	-0,169	-0,355	-0,524	-0,169	-0,355
MEAN	0,655	0,393	0,262	0,641	0,386	0,254	0,660	0,386	0,273
VAR	0,2956	0,2065	0,089	0,3060	0,2099	0,096	0,2950	0,2059	0,089
Note: Sample size : 18 firms									

Table 7- Statistical results (FL in case 3) (source: VN stock exchange 2012)

	Competitor size as current			Competitor size slightly smaller			Competitor size double		
Statistic results	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference	Equity beta	Asset beta (assume debt beta = 0)	Difference
MAX	2,056	1,964	0,092	2,056	2,056	0,000	2,056	1,964	0,092
MIN	-0,524	-0,305	-0,219	-0,524	-0,524	0,000	-0,524	-0,305	-0,219

MEAN	0,682	0,511	0,171	0,598	0,490	0,108	0,667	0,454	0,213
VAR	0,2834	0,2205	0,063	0,2945	0,2839	0,011	0,2898	0,2246	0,065
Note: Sample size : 18 firms									

Based on the calculated results, we find out:

First of all, if competitor size is kept as current, both max and min values of asset beta vary in 3 cases (max values of asset beta decreases to 1,906 and increases to 1,964 when leverage up 30% and down 20%). Secondly, if competitor size is chosen with total asset doubling, max values of asset beta vary in all 3 scenarios. Thirdly, if competitor is chosen with total asset slightly smaller, there is no changes in min values of equity whereas asset beta min values decreases to -0,524 if leverage down 20% and increases to -0,169 if leverage up 30%.

Furthermore, the below chart 1 shows us : in the case competitor size doubles, the risk is less dispersed if leverage up to 30%. Especially, equity beta var reduces to 0,295. On the contrary, in the case of slightly smaller size competitors, if leverage up to 30%, equity beta var increases to 0,641 and the risk is more dispersed.

Last but not least, from chart 2, we could note that in the case of slightly smaller size competitors, keeping the current leverage degree, asset beta mean value reduces to 0,454. On the other hand, in the case of doubling size competitors, asset beta mean value goes up to 0,466.

Chart 1 – Comparing statistical results of equity beta var and mean in three (3) scenarios of changing FL and competitor size (source: VN stock exchange 2012)

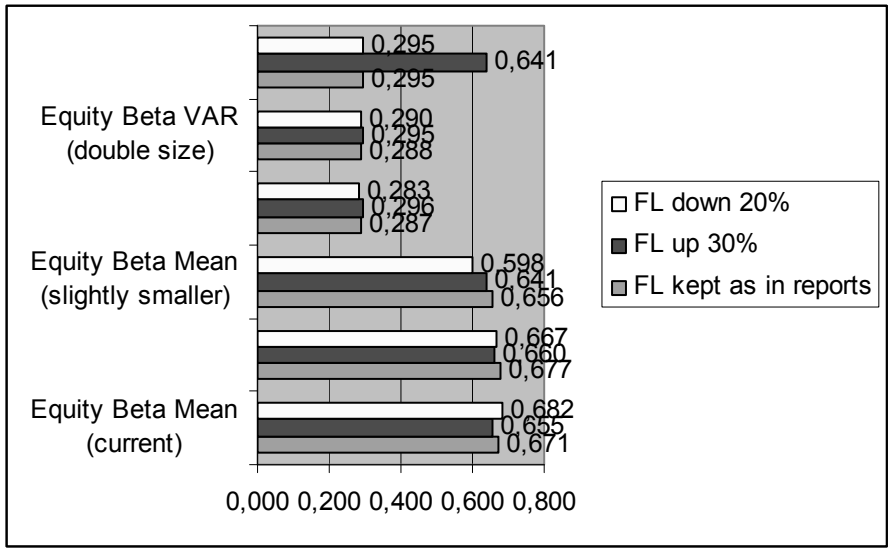
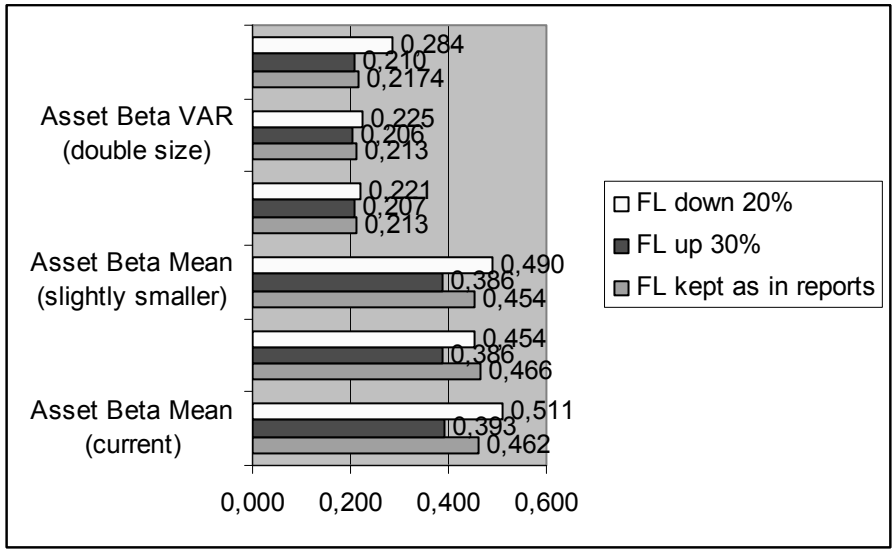


Chart 2 – Comparing statistical results of asset beta var and mean in three (3) scenarios of changing FL and competitor size (source: VN stock exchange 2012)



9. Conclusion and Policy suggestion

In general, the government has to consider the impacts on the mobility of capital in the markets when it changes the macro policies and the legal system and regulation for developing the telecommunication and education market. The Ministry of Finance continues to increase the effectiveness of fiscal policies and tax policies which are needed to combine with other macro policies at the same time. The State Bank of Viet Nam continues to increase the effectiveness of capital providing channels for telecommunication and education companies. Furthermore, the entire efforts among many different government bodies need to be coordinated.

Last but not least, these companies might be aware of a minimum value of asset beta mean of 0,386 with either smaller or doubling size competitors (leverage up 30%) and a maximum value of asset beta mean of 0,511 with approximate size competitors and leverage down 20%. The riskier the marketing strategy, the lower the market risk.

Finally, this paper suggests implications for further research and policy suggestion for the Viet Nam government and relevant organizations, economists and investors from current market conditions.

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Exhibit

Exhibit 1- VNI Index and other stock market index during crisis 2006-2010 (source: global stock exchange 2012)

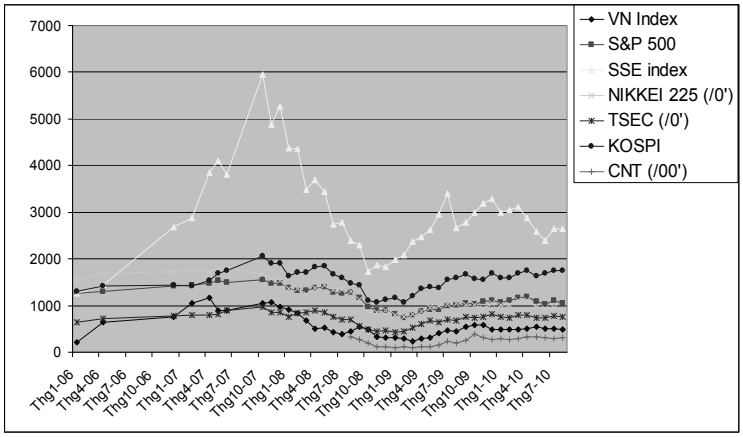

Exhibit 2 – Inflation, GDP growth and macroeconomics factors
(source: Viet Nam commercial banks and economic statistical bureau)

Year	Inflation	GDP	USD/VND rate
2011	18%	5,89%	20.670
2010	11,75% (Estimated at Dec 2010)	6,5% (expected)	19.495
2009	6,88%	5,2%	17.000
2008	22%	6,23%	17.700
2007	12,63%	8,44%	16.132
2006	6,6%	8,17%	
2005	8,4%		
Note	approximately		

Exhibit 3 – Financial leverage degree of listed telecommunication and education firms in three (3) scenarios with different competitors
(source: Viet Nam commercial banks and economic statistical bureau)

Order No.	Company Stock code	FL as current	FL up 30%	FL down 20%
1	ECI	25,5%	33,2%	20,4%
2	INN	46,6%	60,5%	37,2%
3	PTP	52,1%	67,8%	41,7%
4	DHI	26,1%	33,9%	20,9%
5	IHK	42,7%	55,5%	34,2%
6	HTP	22,5%	29,2%	18,0%
7	TPH	55,5%	72,2%	44,4%
8	IN4	39,9%	51,9%	31,9%
9	ADC	49,7%	64,7%	39,8%
10	HST	30,4%	39,6%	24,4%
11	SGD	46,6%	60,6%	37,3%
12	DAE	60,6%	78,7%	48,5%
13	HEV	31,4%	40,9%	25,2%
14	ALT	20,1%	26,1%	16,1%
15	EFI	5,6%	7,3%	4,5%
16	EID	27,8%	36,2%	22,2%
17	DAD	32,3%	42,0%	25,9%
18	SED	53,9%	70,1%	43,1%
	Average	37,2%	48,4%	29,8%

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MUTUAL FUND MANAGEMENT PERFORMANCE IN TRANSITION COUNTRIES: DOMESTIC VS. FOREIGN MUTUAL FUND MANAGERS – RESEARCH FINDINGS FOR SLOVENIA

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Andrej Kuzner

Abstract

In this paper, the performance of management approaches of different equity mutual funds marketed in Slovenia are compared based on their origin; domestic versus foreign. The purpose of this study is to determine whether foreign mutual fund managers are better performing than their domestic counterparts. Referring to the period 2006-2010, this research was carried out on a sample of selected domestic and foreign equity mutual funds, which were treated separately according to the geographical orientation of their investment policies (developed markets vs. emerging markets). Management performance was analysed by means of risk-adjusted return measures, i.e. Sharpe, Traynor and Sortino ratios. In general, the research findings do not confirm foreign mutual fund managers to be outperforming the domestic operators.

Keywords: domestic mutual funds, foreign mutual funds, mutual fund management performance, transition countries

JEL Classification: G10, G11, G14

1. Introduction

The objective of this research is to determine whether the foreign managers of mutual funds marketed in Slovenia are more efficient than their Slovenian counterparts. The research is limited to equity mutual funds. With their long history of performing on highly developed capital markets, the foreign operators are believed to be more experienced and generally more successful than the less experienced domestic managers acting on a more shallow financial market. For the purpose of our analysis of the mutual fund management performances, taking both the profitability and risks into account, some common tools are used, such as the Sharpe ratio, Treynor ratio and the Sortino ratio. The research covers the period 2006 to 2010. A limited number of domestic and foreign equity mutual funds marketed in Slovenia were included in the sample: the inclusion criteria being the period of the fund's operation at a minimum of five years and geographical orientation of its investment policy. Namely, for the purpose of comparability, funds have been

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divided into those with an investment focus on developed markets and those focused on the emerging markets.

The structure of this paper is as follows. The following section provides some characteristics of the Slovenian mutual fund market. In section 3 the literature review is shortly presented. In section 4, theoretical platform and basic tools are presented that enable the establishment of mutual fund management performance. The corresponding database is shown in section 5. Section 6 reveals the results of the empirical research on the effectiveness of the management pattern of selected mutual funds within the period selected. Final conclusions are presented in section 7.

2. Some of the characteristics of the Slovenian mutual fund market

Capital market has a relatively short history in Slovenia. Its development started when the country gained independence in 1991 and continued to grow strongly until the outbreak of the global financial and economic crisis. Thus in 2007, the SBI (Slovenian Stock Exchange Index) was one of the fastest growing, recording a growth rate of more than 70%. As a result, mutual funds, investors and assets kept growing in their numbers and volume. In 2007, the mutual funds' assets had increased by more than 50% arriving at €1,460 per capita (Bank of Slovenia, 2008), while the investment funds together made it to €2,100 per capita. However, these figures were still considerably inferior to the Eurozone average of €11,000 per capita at that time. A further important difference between Slovenia and the Eurozone detected during the pre-crisis period was a different structure of mutual funds in terms of their type. In this respect, the structure of funds in Slovenia moved further away from the Eurozone, where equity funds represented half of the share seen in Slovenia. By both the Slovenian investors' (perceived) high appetite for risk and their great interest in equity funds, local fund managers were soon led to primarily create this type of fund. 10 new domestic mutual funds were created in 2007, bringing the total to 109 at the end of that year, most of which were equity funds. Local mutual funds were soon exposed to direct competition coming from the increasing presence of foreign mutual funds; according to some estimation, their volume corresponded to some 30% of the assets of the domestic mutual funds at the beginning of the crisis. In other words, no fewer than 30 foreign funds joined the local market in 2007; the total of all funds and sub-funds (domestic and foreign) had already reached 260 at the end of that year (Bank of Slovenia, 2008).

Throughout 2008, the growth momentum in the number of mutual funds persisted. For example, 17 new domestic mutual funds were founded, 15 of which were equity funds. By the end of 2008, there was a total of 127 domestic mutual funds marketed in Slovenia, of which 76% were equity funds (Bank of Slovenia, 2009). During that year and including January 2009, 34 foreign funds oficially began operating in Slovenia, bringing the total to 318 funds and sub-funds officially marketed in Slovenia at the of January 2009.

The positive atmosphere on the domestic and global capital markets during the first half of 2007 brought no less than €470 million worth of new net inflows into

mutual funds. That year, the asset unit value (AUV)-weighted mutual funds' annual return reached its highest level since 2002, scoring 28% (Bank of Slovenia, 2008). However, the situation started to change at the end of 2007. In November 2007, mutual funds recorded a net outflow of €18 million, their highest monthly net outflow since 2000; in January 2008, this figure increased to €37.4 million

Thus, the success story of the mutual fund industry gradually met its end. In 2008, the financial crisis provoked net outflows from mutual funds amounting to €304 million (Bank of Slovenia, 2008), which corresponded to 10% of the total mutual fund assets of 2007 (€2,9 billion). Comparatively, the assets net outflow from funds at a European level represented only 4.4% of their total in 2008, according to EFAMA (2009). However, the small financial depth of the Slovenian economy must also be taken into account; the share of funds in Slovenian GDP is just 10% whereas in the Eurozone this percentage is twice as high. Additionally, the booming investment funds' assets did not change this despite growing at 45% and reaching €4.1 billion in 2007 (Bank of Slovenia, 2008). At the time, the latter amount represented more than one third of the volume of bank deposits by households.

The persistence of the financial crisis through the years following led to a contraction of investment funds' assets. At the same time, the Slovenian legislation underwent changes; all investment companies were obliged to transform themselves into mutual funds by August 2011. Thus, while the total investment fund assets accounted for €4.1 billion in 2007 (€2.9 billion of which were mutual funds' assets), this figure only reached €1.9 billion in March 2012; following the previously mentioned Act of Transformation, this figure at the same time represented the entire volume of mutual funds' assets (Bank of Slovenia, 2012). Notwithstanding the considerable decline in the volume of mutual funds' assets, the mutual funds continued to increase in terms of their number. 140 domestic funds were operating on the local market at the end of 2011, most of them being equity funds; between the end of 2011 and March 2012, the number of foreign mutual funds operating in Slovenia increased by 33 to reach a total of 248 (Bank of Slovenia, 2012).

One more point should be highlighted when comparing investments funds in Slovenia and the Eurozone. The share of household investment in Slovenian investment funds is above the average, at around 60% for every year since 2007. Within the Eurozone, this percentage is around half as much and shrinking; from 35% at the beginning of the crisis, it has decreased by around 7 percentage points.

Some of the aforementioned characteristics of the Slovenian mutual fund market, such as the number of funds increasing counter-proportionally to the shrinking volumes of their assets and net inflows, provide a larger choice to potential investors. At the same time, however, these reduce the transparency of the market and make it difficult for investment decisions. Further, due to the high proportion of investment by households in funds, the Slovenian mutual funds industry is much more exposed to investors' impulsive reactions to events on the financial markets. With further local phenomena including low liquidity of domestic securities, slow restructuring of companies and lack of communication with investors on one hand,

and a comparably better atmosphere in the international financial markets on the other, mutual fund investments to foreign countries are tending to increase; therefore, greater care and sense of responsibility are required from fund managers.

3. Literature review

The issue of mutual funds performance has been present in finance literature since the late 1960s. The theory first appeared with the publication of an article by William Sharpe (1966) in which he presented a measure of excess returns per unit of risk. Since then, the analysis of mutual fund performance has drawn considerable attention.

The majority of empirical studies discuss the U.S. market, where the financial market has achieved the highest level of development, while studies for emerging markets are limited in terms of number and coverage. The issue of evaluation of mutual fund performance in Central and South-eastern European countries became popular after the early 2000s. The performance analysis of investment funds operating within the mentioned region include, among others, one from the Czech Republic by Faytova (2004), who examined the performance of investment funds from the perspective of market fluctuation and information on legislative changes. The issue of efficiency of the Czech capital market was also analysed by Hayek (2007). His conclusion was that the relative efficiency of the Czech capital market still lags behind the efficiency of the developed markets. Also frequently mentioned are the findings of Jindrichovska (2009). She analysed price reactions of investment trusts related to the legal conditions existing in the Czech Republic. The efficiency of fund managers concerning Croatian and Slovenian mutual funds and Bosnian investment funds was examined by Jagric et al. (2007). The authors rejected the selection and market timing ability of fund managers. For Polish mutual funds, the same issue was examined by Swinkels and Rzezniczak (2009). The authors rejected the market timing ability of fund managers, while found some evidence for selection ability. The performance analysis for investment fund industry in Poland was also the one made by Bialkowski and Otten (2011). The overall results of the study suggest that Polish mutual funds, on average, are not able to add value. However, the authors also found out that domestic funds outperform internationally investing funds, which points at informational advantages of local over foreign investors. In addition, they found out that "winning" funds are able to significantly beat the market. Such results deviate from studies in developed markets, which have concluded that even past winners are not able to significantly beat the market.

Unlike most of the aforementioned research on the mutual fund management performance, our aim is to investigate whether the foreign mutual fund managers are better performing than their domestic counterparts.

4. Methodological frameworks

The foundation for studying the risk-return quantification was first laid by Markowitz in 1952. In the 1950's, Markowitz, who was known as »the father of modern portfolio theory«, proposed the basic portfolio model based on the mean-variance characteristics of underlying investment. This later became the base of developing asset-pricing models in financial literature. He studied the implications of diversification on risk and return characteristics of a portfolio. He showed increasing diversification lowered the portfolio's standard deviation and variance.

Studies of mutual fund performance started gaining attention from 1960 on, with the introduction of the Capital Asset Pricing Model (CAPM) by William Sharp (1964) and John Lintner (1965). The CAPM is the pillar and the groundwork of Modern Portfolio Theory, which explains the relation between expected returns and risk. The aim is to maximize the expected returns of a portfolio for a given amount of risk. It became the mainstream occupation of financial literature in the years following its introduction.

The main message of the CAPM model is that, on an efficient market, the investor should only be rewarded for bearing the systematic risk. The expected return should depend on the systematic (market) risk (β). A rational investor is only willing to go for an above-average risky investment where an above-average profitability can be expected. The investor may reduce or even eliminate unsystematic risk by diversifying investments; therefore the overall risk taking into account unsystematic risk in addition to the systematic one would not be relevant.

As such, the expected return on investment can be expressed by the following equation (Baeza-Yates et al., 2005):

$$R_i = R_f + \beta(R_m - R_f) \tag{1}$$

where: R_i - expected return on investment; R_f - return on risk-free investment; R_m - return on market portfolio; β - beta coefficient.

The return on risk-free investment can be determined by using long-term government bonds. The term $(R_m - R_f)$ refers to the market risk premium.

With time, and keeping risk and return characteristics in mind, several measures of portfolio performance in CAPM framework were developed. Prominent contributors, whose performance measures have been accepted widely by researchers and academics worldwide, are William S. Sharpe (1966), Jack L. Treynor (1966), Michael C. Jensen (1968) and Eugene F. Fama (1970).

In this paper, we decided to value the mutual funds' performance with the Sharpe ratio, Treynor ratio and Sortino ratio.

Sharpe ratio

The Sharpe ratio was first presented in 1966 and further refined in 1994. It is one of the most commonly used risk-adjusted return measures. Sharpe ratio can be

defined as a rate of reward per unit of risk. It demonstrates the efficiency of a mutual fund business; positive values reflect a positive performance, while poor business efficiency would lead to a negative value.

The ratio represents the absolute measure of performance by comparing the excess return on the asset (i.e. the return of risky investment in excess of the return on a risk-free investment) with the variability of its return within the period observed. It shows the excess return per unit of total risk, where the total risk is represented by the standard deviation of the return. The Sharp ratio allows calculation of the risk premium achieved, i.e. the excess return per unit of risk. It is calculated as the excess return over a given period divided by the standard deviation of the return over the same period (Hodges et al., 1997). To calculate the Sharpe ratio, the following equation is used:

$$S_p = \frac{\bar{R}_p - \bar{R}_f}{\sigma_p} \qquad (2)$$

where S_p stands for the Sharpe ratio; $\bar{R}_p$ is the average return on investment for the period selected; $\bar{R}_f$ represents the average return on risk-free investment for the period selected; and σ_p stands for the standard deviation of the return for the period selected.

Sortino ratio

The Sortino ratio measures the risk-adjusted return and thereby upgrades the Sharpe ratio. To calculate the ratio, the difference is first calculated between the annual rate of return on the portfolio and the minimum required rate of return, and then divided by the annual downside risk (Feibel, 2003). Positive volatility is not accounted for as a negative by the Sortino ratio. Only downside risk is considered as a risk. The downside risk occurs where individual returns fall below the minimum required rate of return.

In terms of statistics, the downside risk is defined by the negative deviation of returns. The negative deviation of return stands for a potential loss that may result from the risk, which also takes into account the minimum acceptable return as a criteria. As a term, negative deviation differs from standard deviation in two respects. Firstly, standard deviation is measured relative to the average return, while the negative deviation refers to an external reference point - the remaining acceptable rate of return. Secondly, standard deviation measures all deviations from the average return, while the negative deviation only observes deviations below the reference point (Sortino and Satcheel, 2002).

To fix the minimum required rate of return, a rate required by the investor can be used. So these rates may vary. It may be the return on risk-free investments, but the minimum required rate of return may also be equal to 0 (Elton et al., 2009). To calculate the Sortinoratio, the following equation is used (Feibel, 2003):

$$S_r = \frac{(\bar{R}_p - T) \times P}{\sqrt{\frac{\sum (RF_i - T)^2 \text{ kjer je } RP_i < T}{n}} \times \sqrt{P}} \quad (3)$$

where S_r stands for the Sortino ratio; $\bar{R}_p$ is the average return on investment in the period selected; T is the minimum required rate of return; RP_i is the actual rate of return in the individual period observed; n stands for the number of periods observed; and P is the number of periods observed within a year.

Treynor ratio

The calculation of this ratio also takes both the return and the risk into account. Its calculation procedure is similar to that of Sharpe's, but the Treynor ratio only observes systematic risk, not the overall risk. As with Sharpe, a negative outcome indicates poor management performance (Travers, 2004). To calculate the Treynor ratio, the following equation is used (Feibel, 2003):

$$T_r = \frac{(\bar{R}_p - \bar{R}_f)}{\beta} \quad (4)$$

where T_r stands for the Treynor ratio; $\bar{R}_p$ is the average return on investment in the period selected; $\bar{R}_f$ is the average return on risk-free investment in the period selected; and β stands for the beta coefficient.

Contrary to the standard deviation of return on investment measuring the overall risk, the beta coefficient only measures the systematic risk. Its purpose is assessing an individual investment or an investment portfolio.

Systematic risk is the risk that cannot be eliminated by diversifying assets to various financial investments; it is the consequence of those factors (mainly macroeconomic variables) that affect all the investments on a capital market.

The beta coefficient's main message is that on an efficient capital market, the investor should only be rewarded for bearing the systematic risk; the expected or required return on investment should only depend on the systematic risk. To calculate the beta coefficient, the following equation is used (Brentani, 2004):

$$= \beta \frac{COV_{(Rp,Rm)}}{VAR_{(Rm)}} \quad (5)$$

where β stands for the beta coefficient; $COV_{(Rp,Rm)}$ is the covariance of the return on portfolio p and return on benchmark index; and $VAR_{(Rm)}$ stands for variance of the return on benchmark index.

In the equation above, the numerator represents the covariance between the return on the fund and the return on the benchmark (referential) index over a given period, while the denominator is the variance of return on a benchmark (referential) index over the selected period.

If β equals 1, the systematic risk is equal to the risk on the benchmark index; a value below 1 signifies that the risk (volatility) on the fund is lower than the risk on the benchmark index; a value higher than 1 indicates the fund's volatility or risk being greater than the risk on the benchmark index (Yao et al., 2002).

5. The database

Mutual funds included in the research invest at least 70% of their assets in stocks. At the same time, it is assumed that no single investment region or country would represent more than 60% of any fund's investments. Based on the investment region criterion, the funds are divided into four groups, namely: »Domestic Emerging Market Funds« (i.e. domestic manager investing in emerging markets); »Foreign Emerging Market Funds« (i.e. foreign manager investing in emerging markets); »Domestic Developed Market Funds« (i.e. domestic manager investing in developed markets); and »Foreign Developed Market Funds« (i.e. foreign manager investing in developed markets). These labels for the groups of funds will be used hereafter.

The research included: 9 funds in the group of "Domestic Emerging Market Funds"; 10 funds in the group of "Foreign Emerging Market Funds"; 8 funds in the "Domestic Developed Market Funds"; and 9 funds in the "Foreign Developed Market Funds."

Calculations of the Sharpe- and Treynor-ratios as well as Sortino ratios were performed for each of the four groups of funds. The research was conducted for the period 2006-2010. Websites of the included funds' managers as well as the Bloomberg Business Information System and other available data sources and information would serve as the data source for the empirical research.

To calculate the Sharpe ratios, information was needed for the average annual return for each mutual fund throughout the period analysed. In calculating their profitability, data on monthly returns of each mutual fund were used; based on these data, the geometric mean of returns on each individual fund were calculated and then converted to an annual level to obtain the average annual return for the period under observation (on each individual mutual fund). These data were then used for the

subsequent calculations of the ratios. The average annual return on each group of funds was calculated using the arithmetic mean of returns on each mutual fund.

For the overall risk on an individual mutual fund, calculations of standard deviations of returns on individual mutual funds were used, meaning the average deviation of returns from the average annual return over the entire period. First, standard deviations for each mutual fund were calculated on a monthly basis; these were converted to an annual level to obtain standard deviations of returns for each individual mutual fund; these were used to calculate the ratios.

The Sharpe ratios were calculated based on the average annual returns and standard deviation of returns on the individual fund over the given period. For the risk-free interest rate, the average return on a 10-year German government bond for the given period was used, its rate being 3.61%.

To calculate the Sortino ratios, data on monthly returns were used, which were then converted to an annual level. Data on the average annual return on the funds were obtained by using the geometric mean. The average Sortino ratio for a group of funds was calculated with the arithmetic mean. In calculating this, only the downside risks were taken into account, since positive volatility is not considered as a risk.

Therefore, only a return falling below the minimum required return on an investment was considered unwanted. In our case, the minimum required rate of return of 0% was fixed, meaning that any positive return would exceed the minimum required rate of return. As such, any negative return within the individual period would be considered risky (in our case, data on monthly levels were used).

Treynor ratios are calculated in a similar way to Sharpe's, except only the systematic risk is used for calculations instead of overall risk. As with the Sharpe ratio, the ratio between excess returns and risk is measured by the Treynor ratio.

To calculate the Treynor ratio, the average annual return was used calculated from the geometric mean of the monthly returns on each fund. As before, the average return on a 10-year German government bond for the given period would be used as the risk-free interest rate. As the benchmark for calculating the beta coefficient (β) on »Emerging Market Funds«, the values of the MSCI EM Markets Index was used, measured in €; for the »Developed Market Funds« the values of the MSCI WORLD Index was used, also measured in €.

6. Results of the research

6.1 Sharpe ratio

Sharpe ratio on »Emerging Market Funds«

Detailed calculations of the Sharpe ratios concerning the »Domestic Emerging Market Funds« and »Foreign Emerging Market Funds« are shown in Tables 1 and 2.

Table no.1: Sharpe ratios on »Domestic Emerging Market Funds«

Equity Mutual Fund	*Sp*	*Rate of return (%)*	*σ (%)*
NLB Funds - South/Central/Eastern Europe - Equity	-0.19	-1.43	25.96
Alta Asia	-0.23	-1.43	22.23
Alta Asian Tigers	-0.15	0.50	20.61
Ilirika BRIC Equity	-0.09	1.61	22.97
Ilirika Eastern Europe Equity	-0.03	2.85	25.08
Infond BRIC	-0.09	1.61	22.97
KD New Markets	0.15	7.48	26.65
Krekov Most Emerging Markets	0.06	4.92	22.45
NLB Funds - Fast Growing Economies - Equity	0.21	8.08	21.25
Average	**-0,04**	**2,69**	**23,35**

Notes: ***Sp*** – Sharpe ratio; ***return (in %)*** – average annual rate of return; geometric mean used to calculate the average annual rate of return; ***σ (in %)*** – standard deviation of the fund; overall risk.

The arithmetic mean of the average annual returns on »Domestic Emerging Market Funds« over the entire period was 2.69%. Among the domestic funds, the highest average annual return was reached by the NLB Funds - Fast Growing Economies - Equity (amounting to 8.08%). Close to that rate, the KD New Markets scored 7.48%. Lesser returns were achieved by the remaining funds, with two of them negative.

Among the »Foreign Emerging Market Funds«, three funds would stand out in terms of their average annual yields, namely the Templeton Asia Growth Fund scoring 14.89% (significantly more than the highest average annual return rate performed by a domestic emerging markets fund), followed by the RCM Emerging Markets Aktien at 12.07%, and at 11.09% the RCM Eurasien Aktien managed by Raiffeisen Kapitalanlage-Gesellschaft m.b.H. The average rate of return on the »Foreign Emerging Market Funds« group amounted to 7.09%, exceeding the average annual return on »Domestic Emerging Market Funds« only scoring 2.69%.

Table no.2: Sharpe ratios on »Foreign Emerging Market Funds«

Equity mutual fund	*Sp*	*Rate of return (%)*	*σ (%)*
ESPA stock BRIC	0.00	3.54	24.67
EEF equity emerging markets Asia	0.11	6.25	23.90
EEF Middle East & Africa	-0.03	2.79	24.66
Templeton Asia growth fund	0.43	14.89	26.13
Templeton emerging markets fund	0.09	5.57	22.17
PI Funds - Asia (ex. Japan) equity	0.09	5.57	22.33
PI Funds - emerging markets aktien	0.10	6.07	25.52

RCM emerging markets aktien	0.34	12.07	24.99
RCM Eurasien aktien	0.27	11.09	27.65
RCM Osteuropa aktien	-0.02	3.04	31.17
Average	**0.14**	**7.09**	**25.32**

Notes: ***Sp*** – Sharpe ratio; ***return (in %)*** – average annual rate of return; geometric mean used to calculate the average annual rate of return; ***σ (in %)*** – standard deviation of the fund; overall risk.

The riskiest or most volatile »Domestic Emerging MarketsFund« turned out to be the KD Emerging Markets (standard deviation of return over the entire period at 26.65%). The lowest volatility was shown by the Alta Asian Tigers Fund (still high at 20.61%). The standard deviation of return for the entire group of the »Domestic Emerging Market Funds« amounted to 23.35%, representing a high level of volatility.

The most volatile and risky »Foreign Emerging Markets Fund« turned out to be the RCM Osteuropa Aktien (standard deviation of 31.17%). Its high level of risk or volatility, however, was not reflected in a greater profitability, since its average annual rate of return was only 3.04%. Meanwhile, other funds achieved significantly higher returns at lesser risks. High risk did pay out for both the RCM Eurasien Aktien and Templeton Asia Growth Funds, who achieved high average annual returns within the group analysed. Over the period reviewed, the least risky foreign fund was the Templeton Emerging Markets Fund (standard deviation of 22.17%). The average standard deviation of this group of funds reached 25.32% in the period examined. On average, foreign funds showed greater volatility than domestic ones; they were riskier but also, on average, twice as profitable.

Calculating the Sharpe ratios enables explanation of what risk premium the funds reached per unit of overall risk and, consequently, which funds were better managed. As seen in Table 1, the average Sharpe ratio calculated for the »Domestic Emerging Market Funds« was negative at -0.04. This negative value indicates that the group reached a lower average return rate compared with a risk-free investment. On average, these managers achieved a negative result per unit of the overall risk.

In the group of domestic funds, only three reached a positive Sharpe ratio outcome. The best managed fund proved to be the NLB Funds - Fast Growing Economies - Equity (its Sharpe ratio was 0.21). This fund also had the highest annual return rate over the period analysed. Placed second was the most risky or volatile fund, the KD New Markets.

In the group of domestic funds, the poorest managed fund was the Alta Asia (Sharpe ratio of -0.23). Within the period observed, no less than 7 »Domestic Emerging Market Funds« achieved a negative return per unit of risk, reaching on average a lesser return than a risk-free investment.

The average Sharpe ratio of the »Foreign Emerging Market Funds« was 0.14, which was higher than the »Domestic Emerging Market Funds« average Sharpe ratio. Most of the foreign funds recorded a positive ratio and just two of the funds reached an average return below the return on risk-free investment. The best managed

foreign fund was the Templeton Asia Growth Fund, with a Sharpe ratio of 0.43, meaning that its surplus return per unit of risk reached 0.43%.

The two worst managed funds were the EEF Middle East & Africa (Sharpe ratio of -0.03) and the RCM Osteuropa Aktien (Sharpe ratio of -0.02). The RCM Osteuropa Aktien fund was also the riskiest one, meaning that its higher level of risk did not help it to achieve a higher rate of return when compared with the rest of the funds.

Sharpe ratio on » Developed Market Funds «

In the same way as with the »Emerging Market Funds«, Sharpe ratios were also calculated for »Developed Market Funds«.

Table no.3: Sharpe ratios on »Domestic Developed Market Funds«

Equity mutual fund	*Sp*	*Rate of return (%)*	*σ (%)*
Abancna DZU Equity Europe	-0.06	2.64	15.72
Infond Europe	-0.41	-4.37	19.70
NFD Euro/America	-0.31	-2.04	18.26
NLB Funds-Dynamic-equity	-0.19	-0.06	19.17
NLB Funds - Europe equity	-0.25	-0.85	18.17
NLB Funds – World developed markets-equity	-0.35	-1.87	15.83
PSP Blue Line	0.05	4.38	15.87
Triglav Steber I	-0.06	2.72	15.00
Average	**-0.20**	**0.07**	**17.22**

Notes: ***Sp*** – Sharpe ratio; ***return (in %)*** – average annual rate of return; geometric mean used to calculate the average annual rate of return; ***σ (in %)*** – standard deviation of the fund; overall risk.

Table no.4: Sharpe ratios on »Foreign Developed Market Funds«

Equity mutual fund	*Sp*	*Rate of return (%)*	*σ (%)*
PI funds – Top european players	-0.38	-2.80	16.84
Franklin mutual european fund	-0.18	1.09	14.25
PI Select Europe stock	-0.24	-0.47	17.36
RCM Europa aktien	-0.22	-1.09	21.22
RCM Global aktien	-0.44	-3.55	16.43
RCM Topdividend aktien	-0.29	-1.55	17.66
SGAMM Equities eu. opportunities	-0.35	-3.45	20.18
VB Dividend invest	-0.45	-4.89	18.84
EEF Equity Europe	-0.31	-1.82	17.26
Average	**-0.32**	**-2.06**	**17.78**

Notes: ***Sp*** – Sharpe ratio; ***return (in %)*** – average annual rate of return; geometric mean used to calculate the average annual rate of return; ***σ (in %)*** – standard deviation of the fund; overall risk.

A positive average annual rate of return was only achieved by three of the »Domestic Developed Market Funds« (Table 3), namely the PSP Blue Line scoring 4.38%, Triglav Steber I at 2.72% and the Abancna DZU Equity Europe at 2.64%. The average annual return on the entire group of domestic funds amounted to 0.07%.

As shown in Table 4, just one foreign fund, namely the Franklin Mutual European Fund, reached a positive average annual return of 1.09%. The lowest average annual return was achieved by the VB Dividend Invest scoring -4.89%. The average annual return on the entire group of foreign funds amounted to -2.06%, a value that was outperformed by the » Domestic Developed Market Funds « group.

The riskiest or most volatile of the domestic funds turned out to be the Infond Europe (standard deviation of 19.7%). Its higher risk generated no higher return, since this fund was also the least profitable of all within the group analysed.

Funds that outperformed in terms of return were also the least risky or volatile ones. The lowest volatility was seen in the Triglav Steber I Fund (standard deviation of 15%) and the Abancna DZU Equity Europe (15.72%). The average standard deviation within the group analysed amounted to 17.22%.

On average, the group of foreign funds proved more volatile or risky when compared with the domestic one. The differences, however, proved to be less important than in the case of emerging market funds. As before, the higher risk did not lead to higher returns. Domestic funds proved to be slightly less risky, but more profitable. The average standard deviation of the foreign group was 17.78%. The most risky fund turned out to be the RCM Europa Aktien (standard deviation of 21.22%), the least volatile and at the same time the most profitable was the Franklin Mutual European Fund (standard deviation of 14.25%).

The average Sharpe ratio of the »Domestic Developed Market Funds« fell negative at -0.20, so this group had lower average annual returns than a risk-free investment. All but one fund recorded a negative Sharpe ratio; the lowest one owned by the riskiest of them all, the Infond Europe, its higher risk not leading to a higher return. The best managed fund proved to be the PSP Blue Line, scoring 0.05% in surplus return per unit of risk.

The average Sharpe ratio of the »Foreign Developed Market Funds« also proved to be negative at -0.32. In the average, the managers of the group of funds analysed performed loss per unit of risk. Without exception, all funds within this group achieved negative values of the Sharpe ratio.

The poorest managed funds of this group were the VB Dividend Invest (Sharpe ratio of -0.45), while the best managed fund was the Franklin Mutual European Fund scoring -0.18. The latter were the only fund of this group to record a positive average annual rate of return and the lowest level of risk at the same time.

6.2 Sortino ratio

Sortino ratio on »Emerging Market Funds«

Tables 5 and 6 show the calculated Sortino ratios for "Emerging Market Funds".

Table no.5: Sortino ratios on »Domestic Emerging Market Funds«

Equity mutual fund	S_r	*Rate of return (%)*	σ_n (%)
NLB Funds - South/Central/Eastern Europe -Equity	-0.07	-1.43	19.56
Alta Asia	-0.09	-1.43	16.64
Alta Asian Tigers	0.03	0.50	16.48
Ilirika BRIC - Equity	0.09	1.61	18.24
Ilirika Eastern Europe - Equity	0.16	2.85	18.22
Infond BRIC	0.08	1.61	19.02
KD New Markets	0.39	7.48	19.35
Krekov Most Emerging Markets	0.29	4.92	16.98
NLB Funds - Fast Growing Economies - Equity	0.53	8.08	15.13
Average	**0.16**	**2.69**	**17.74**

Notes: S_r –Sortino ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; σ_n ***(%)*** **–** negative deviation of the fund's return.

The average value of the Sortino ratio on the »Domestic Emerging Market Funds« group (Table 5) was positive at 0.16. The highest Sortino ratio was scored by the NLB Funds - Fast Growing Economies - Equity (at the lowest rate of risk or volatility and featuring the highest average annual return). Two of these funds had negative Sortino ratio; their average annual return fell below the minimum required return fixed at 0%. The worst managed fund was the Alta Asia (Sortino ratio at -0.09).

Sortino ratios on »Foreign Emerging Market Funds« (Table 6) were each positive (their average value was 0.39). All funds also achieved returns superior to the minimum required rate of return. The highest Sortino ratio was achieved by the Templeton Asia Growth Fund, its value being far above the average. This is explained by its highest annual return of all the funds analysed. The lowest Sortino ratio was achieved by the RCM Osteuropa Aktien at 0.14. The reason for this could be the poor average annual return and the highest negative deviation of return.

Table no.6: Sortino ratio on »Foreign Emerging Market Funds«

Equity mutual fund	S_r	*Rate of return (%)*	σ_n (%)
ESPA stock BRIC	0.19	3.54	18.72
EEF equity emerging markets Asia	0.39	6.25	16.19
EEF middle east & africa	0.15	2.79	18.28
Templeton Asia growth fund	0.80	14.89	18.52
Templeton emerging markets fund	0.34	5.57	16.20
PI Funds - Asia (ex. Japan) equity	0.34	5.57	16.49
PI Funds - emerging markets aktien	0.31	6.07	19.45
RCM emerging markets aktien	0.71	12.07	16.89
RCM Eurasien aktien	0.57	11.09	19.45
RCM Osteuropa aktien	0.14	3.04	22.49
Average	**0.39**	**7.09**	**18.27**

Notes: S_r –Sortino ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; σ_n ***(%)*** **–** negative deviation of the fund's return.

Sortino ratio on »Developed Market Funds«

Tables 7 and 8 show the Sortino ratio calculations for »Developed Market Funds«.

Table no.7: Sortino ratio for »Domestic Developed Market Funds«

Equity mutual fund	S_r	*Rate of return (%)*	σ_n (%)
Abancna DZU Equity Evrope	0,23	2,64	11,45
Infond Europe	-0,27	-4,37	16,07
NFD Euro/America	-0,14	-2,04	14,56
NLB Funds–dynamic-equity	0,00	-0,06	14,31
NLB Funds – Europe-equity	-0,06	-0,85	13,31
NLB Funds – World developed markets-euity	-0,16	-1,87	11,84
PSP Blue Line	0,39	4,38	11,18
Triglav Steber I	0,25	2,72	10,92
Average	**0.03**	**0.07**	**12.96**

Notes: S_r –Sortino ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; σ_n ***(%)*** **–** negative deviation of the fund's return.

The average Sortino ratio of the »Domestic Developed Market Funds« (Table 7) group was positive at 0.03. PSP Blue Line scored highest in terms of the Sortino ratio (at the same time achieving the highest average annual return within this group of funds). The ratio owned by the best managed fund was 0.39. The worst-managed

fund in terms of the Sortino ratio was Infond Europe scoring -0.27. The main reason for this lies in its lowest average annual return and highest negative deviation in the group »Domestic Developed Market Funds«.

All but one of the Sortino ratio scores for »Foreign Developed Market Funds« were negative (Table 8). The best managed fund in terms of the Sortino ratio was the Franklin Mutual European Fund (scoring 0.10). This fund was the only to reach an average annual return above 0%, thereby exceeding the minimum required return. The average value of the Sortino ratio achieved by the foreign funds was -0.14, meaning that the funds' returns on average fell below the minimum required rate of return. The lowest value was seen in the VB Dividend Invest scoring -0.33.

Table no.8: Sortino ratio for »Foreign Developed Market Funds«

delniški vzajemni sklad	S_r	*donosnost (v %)*	σ_n *(v %)*
PI funds - Top european players	-0,23	-2,80	12,40
Franklin mutual european fund	0,10	1,09	10,85
PI Select Europe stock	-0,04	-0,47	13,04
RCM Europa aktien	-0,07	-1,09	15,74
RCM Global aktien	-0,27	-3,55	13,03
RCM Topdividend aktien	-0,12	-1,55	13,17
SGAMM Equities eu. opportunities	-0,21	-3,45	16,36
VB Dividend invest	-0,33	-4,89	15,01
EEF Equity Europe	-0,14	-1,82	12,96
Average	**-0,14**	**-2,06**	**13,62**

Notes: S_r –Sortino ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; σ_n ***(%)*** **–** negative deviation of the fund's return.

6.3 Treynor ratio

Treynor ratio on »Emerging Market Funds«

Tables 9 and 10 show the Treynor ratios and the items required for calculating this coefficient.

Table no.9: Treynor ratios on »Domestic Emerging Market Funds«

Equity Mutual Fund	T_r	*Rate of reurrn (%)*	β
NLB Funds - South/Central/Eastern Europe -Equity	-5,54	-1,43	0,91
Alta Asia	-5,86	-1,43	0,86
Alta Asian Tigers	-4,10	0,50	0,76
Ilirika BRIC - Equity	-2,20	1,61	0,91
Ilirika Eastern Europe - Equity	-0,95	2,85	0,80

Infond BRIC	-1,85	1,61	1,08
KD Emerging Markets	3,58	7,48	1,08
Krekov Most Emerging Markets	1,43	4,92	0,92
NLB Funds - Fast Growing Economies - Equity	5,08	8,08	0,88
Average	**-1,16**	**2,69**	**0,91**

Notes: T_r – Treynor ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; β – beta of the fund; systematic risk.

With the β calculated for an individual fund, volatility of the fund is displayed compared with the referential MSCI EM Market Index. »Domestic Emerging Market Funds« (Table 9) proved to be less volatile or risky on average than the referential index. The average β value over the entire period was 0.91. Just two of the funds were more volatile than the referential index; the Infond BRIC and KD Emerging Markets (β equal to 1.08). The lowest level of risk was seen in the Alta Asian Tigers.

The average value of the Treynor ratio within the »Domestic Emerging Market Funds« group was negative at -1.16%. The highest Treynor ratio value was achieved by the NLB Funds – Fast Growing Economies - Equity at 5.08 %. Positive values were achieved by two more funds within this group, namely the KD Emerging Markets at 3.58 % and the Krekov Most Emerging Markets at 1.43 %.

In terms of the Treynor ratio, the poorest managed funds proved to be the Alta Asia at -5.86 %, followed by the NLB Funds South/Central/Eastern Europe - Equity at -5.54 %.

While the »Domestic Emerging Market Funds« proved less risky on average than the referential index, the »Foreign Emerging Market Funds« (Table 10) recorded greater volatility than the referential MSCI WORLD Index. Their average β value was 1.03. The highest β value was achieved by the RCM Osteuropa Aktien, but its high risk did not reflect a high rate of return. The lowest β values were achieved by the PI Funds-Asia (ex. Japan) Equity and the Templeton Emerging Market Fund. Both funds recorded a return that fell below the average of the group.

Table no.10: Treynor ratio on »Foreign Emerging Market Funds«

Equity mutual fund	T_r	*Rate of return (%)*	β
ESPA stock BRIC	-0.08	3.54	0.96
EEF equity emerging markets Asia	2.75	6.25	0.96
EEF Middle east & Africa	-0.82	2.79	1.01
Templeton Asia growth fund	10.44	14.89	1.08
Templeton emerging markets fund	2.06	5.57	0.95
PI Funds - Asia (ex. Japan) equity	2.28	5.57	0.86
PI Funds - emerging markets aktien	2.24	6.07	1.10
RCM emerging markets aktien	8.21	12.07	1.03
RCM Eurasien aktien	6.62	11.09	1.13

RCM Osteuropa aktien	-0.48	3.04	1.19
Average	**3.32**	**7.09**	**1.03**

Notes: T_r – Treynor ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; β – beta of the fund; systematic risk.

Values of the Treynor ratio on »Foreign Emerging Market Funds« were considerably higher compared with the »Domestic Emerging Market Funds«. The average Treynor ratio value for the foreign funds was 3.32%. The best managed funds were the Templeton Asia Growth Fund and the RCM Emerging Markets Aktien. Both stood out for the performance of their average annual returns; however, with their β values above 1, they proved to be riskier than the referential index. For the EEF Middle East & Africa, its risk level, far above the referential index, did not lead to a positive Treynor ratio (scoring -0.82 %).

Treynor ratio on »Developed Market Funds«

As for the »Emerging Market Funds«, the » Developed Market Funds « show a higher volatility for the foreign funds than domestic ones. For both markets, foreign funds were more volatile than domestic funds compared to the referential index.

Table no.11: Treynor ratio on »Domestic Developed Market Funds«

Equity mutual fund	T_r	***Rate of return (%)***	β
Abancna DZU Equity Europe	-1.37	2.64	0.71
Infond Europe	-7.75	-4.37	1.03
NFD Euro/America	-5.14	-2.04	1.10
NLB Funds-dynamic-equity	-3.19	-0.06	1.15
NLB Funds-Europe-equity	-4.33	-0.85	1.03
NLB Funds – World developed markets-equity	-5.60	-1.87	0.98
PSP Blue Line	1.14	4.38	0.68
Triglav Steber I	-1.22	2.72	0.73
Average	**-3.43**	**0.07**	**0.93**

Notes: T_r – Treynor ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; β – beta of the fund; systematic risk.

The average β value for »Domestic Developed Market Funds« of 0.93 confirms these funds as less volatile or risky on average than the referential index (Table 11). The average score in the Treynor ratio on the domestic funds group was -3.43%. Just one fund (the PSP Blue Line) achieved a positive value of the ratio and thus proved to be the best managed fund, while at the same time recording the lowest β score. The worst managed fund was the Infond Europe scoring -7.75 %.

For the »Foreign Developed Market Funds« group (Table 12), the average β value was 1.05, making the funds of this group more volatile or risky than the referential index. The highest β value was recorded by the RCM Europa Aktien (1.25), the lowest one by the Franklin Mutual European Fund (0.85).

Table no.12: Treynor ratio on »Foreign Developed Market Funds«

Equity mutual fund	T_r	*Rate of return (%)*	β
PI funds - Top european players	-6.29	-2.80	1.02
Franklin mutual european fund	-2.97	1.09	0.85
PI Select Europe stock	-3.96	-0.47	1.03
RCM Europa aktien	-3.76	-1.09	1.25
RCM Global aktien	-7.16	-3.55	1.00
RCM Topdividend aktien	-5.01	-1.55	1.03
SGAMM Equities eu. opportunities	-6.09	-3.45	1.16
VB Dividend invest	-7.95	-4.89	1.07
EEF Equity Europe	-5.17	-1.82	1.05
Average	**-5.37**	**-2.06**	**1.05**

Notes: T_r – Treynor ratio; ***return (in %)*** – average annual rate of return; average annual rate of return calculated by using the geometric mean; β – beta of the fund; systematic risk.

The average value of the Treynor ratio on »Foreign Developed Market Funds« was -5.37%. With no exception, all of the funds scored negative ratio values. The best managed among them was the Franklin Mutual European Fund scoring the lowest β value (the only one recording a lower volatility than the referential index), while the poorest managed fund was VB Dividend Invest (ratio value of -7.95).

7. Conclusions

Before the outbreak of the global financial crisis, the mutual fund industry was booming in most countries, both developed and transitional. Slovenia was not lagging behind, evidenced by the fact that Slovenian mutual funds assets recorded an increase of more than 50% in 2007. In parallel with the huge growth in assets, the number of new mutual funds on the market also increased, most of them being equity funds. In this context, foreign mutual funds represented a growing, direct competition to Slovenia's domestic mutual funds, not only in their number but also in terms of their asset volume. In 2007, they accounted for 30% of assets of domestic mutual funds (Bank of Slovenia, 2008). In the course of the following years, the financial crisis led to a substantial net outflow of assets from the funds, but this did not significantly affect growth dynamics in the number of funds and sub-funds. Although the increasing number of funds might have provided a greater choice to potential investors, at the same time it reduced transparency and made investment

decisions difficult. The objective of this research, conducted on selected domestic and foreign equity mutual funds marketed in Slovenia, was to analyse the management efficiency of one against the other, as a belief is often present, that foreign mutual funds managers trading in emerging markets were outperforming their domestic counterparts thanks to their longer history of operation and, consequently, more experience.

The findings of this research on a sample of selected domestic and foreign equity mutual funds for the five-year period (2006-2010) do not confirm the management of foreign equity mutual funds marketed in Slovenia to be more efficient than the management of domestic funds. Since the management performance of selected domestic and foreign funds were analysed separately by groups of funds according to their investment policy (funds investing in developed markets and funds investing in emerging markets), the research findings indicate that the management of foreign funds are only more effective in the case of »Emerging Market Funds«, but not in »Developed Market Funds«. Based on the calculations of all three indicators used for evaluating the management performance, the »Foreign Emerging Market Funds« group on average reached better results over the observed period. In terms of the Treynor ratio, the »Foreign Emerging Market Funds« turned out to be significantly better managed than the »Domestic Emerging Market Funds«. While the former scored a positive Treynor ratio of 3.32% per unit of systematic risk, the latter remained negative, their Treynor ratio showing -1.16 %.

In the case of the »Developed Market Funds«, the research outcomes proved that local managers were outperforming their foreign counterparts, based on the calculations of all three indicators used for evaluating management performance. On the one hand, this result might be somewhat surprising. One of the reasons could be in the investment policy followed by some of the »Domestic Developed Market Funds«; the structure of their investments featured a higher proportion of Slovenian companies' stocks; on average, these rates grew faster than foreign stocks or stocks in developed markets during the period prior to the financial crisis. This might have affected, in a positive way, the operating results of those domestic funds, which would largely invest in the stocks of Slovenian companies.

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PSYCHOMETRIC TESTS APPLICATIONS BY ALBANIAN HR MANAGERS

Sidita Dibra*

Abstract

Human resources are already acknowledged for the contribution towards sustained competitive advantage, especially in today's rapidly changing environment (Barney, 1991), that's why Human Resources Management (HRM) practices should be based on techniques able to identify and use the personnel professional and personal competencies. Personal characteristics such as personality, are in the same time more intriguing and more difficult to measure and manage. Several workplace personality testing techniques are being applied by HR specialists to identify the "actual or future employee characteristics or traits – including how one looks, thinks, acts and feels – as a product of interacting genetic and environmental influences" (Kreitner, Kinicki, 2001). The results of personality test should assist HR specialists to take more effective decisions, but "even if these tests are quite popular, they have psychometric and conceptual deficiencies that require caution in their application" (Chase, 2008).

This paper aims to give a general overview of the most popular personality tests eventual application in HR decisions. Semi structured interviews were conducted with HRM professionals in companies operating in Albania to identify the application of personality test as tool for making decisions, the expected benefits and perceptions about the validity of these tests.

Keywords: personality test, human resource management, organizational behavior

JEL Classification: D230, M120, M190

1. Introduction

Individual differences are of great importance to understand the organizational behavior in the interpersonal, group and organizational level, so rather than limiting it, today's managers need to better understand and accommodate diversity. This is why in modern organizations, psychometric testing has become increasingly popular and a powerful HRM function tool and beyond, used particularly in job analysis, selection, team building, training and development, team building, career planning, performance appraisal, motivation, turnover analysis, job satisfaction assessment etc. (Kreitner and Kinicki, 2001; Michael, 2003; Chase, 2008).

Most of personality tests are based on typologies and classify the ones who take the test into categories with easily distinguished personal characteristics. The simplicity and utility of these typological representations has increased the popularity

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these instruments, especially from HRM specialists and managerial positions. There is strong evidence (Fleming and Harris 2005; Zeithaml and Bitner, 2008) that employees behavior is vital especially in service sector where employees have a more frequent contact with customers and directly influence their (customers) perception about the service.

This paper addresses the issue of psychometric tests application in Albanian organizations and is organized as follows. In section 2 is provided the literature review regarding personality tests in general and a decision making tool. Proper implications are given as well. In section 3 is briefly explained the research methodology. In section 4 are presented the research findings. Finally, the concluding remarks are given in section 5.

2. Review of the literature

Psychometric testing includes a wide variety of tests used to measure individual characteristics such as intellectual ability tests (IQ) measuring dimensions such as numerical, verbal and diagrammatic reasoning, memory, inductive reasoning, speed of perception; psychomotor and mechanic ability tests; knowledge and skills testing; interest inventories; and personality tests aimed at measuring individuals' preferences for ways of behaving, thinking and feeling (Koli and Llaci, 2005).

A personality trait is a relatively stable psychological attribute of an individual that tends to direct behavior in a wide variety of situations. The measurement of traits assumes that a given trait is found in varying magnitudes or units (from possessing little of the trait to possessing a lot of the trait) in different individuals. The magnitude of a score is meaningful for comparisons among individuals on a particular trait. The trait is also assumed to be normally distributed continuous data with only a relatively small percentage of people scoring at the low or high extreme and most individuals falling around the midpoint of a distribution of test scores (Chase, 2008).

Each year tons of personality tests are administered in the workplace, schools, community groups, management workshops, counseling centers etc. as a tool to help people understand their own behavior as well as the behavior of others. But in spite of the popularity, these tests have many problems in their use and a large body of research suggests that the reliability and validity of these tests cannot be supported. (Pittenger, 2009)

2.1. Personality tests

Personality tests are instruments build to make us better understand who are we dealing with in the organization. Since personality is considered a combination of stable characteristics (McCrae cited by Kreitner and Kinicki, (2001), pp.145), based on the accurate personality tests results one can extend the awareness about the other and take more effective decisions. But choosing a personality test for hiring or other decisions can be just as tricky as choosing the right candidate for the job. Among the most popular personality tests used in the workplace, we can mention:

Myers Briggs Type Indicator (MBTI) is absolutely among the most popular (over three million people a year complete the assessment (Michael, 2003)) and most

discussed personality tests based on the Jung theory of physiological type. Isabel Briggs Myers and her mother, Katherine Briggs developed the MBTI to make the Jungian theory more understandable and usable (Myers and McCaulley, 1998). Jung considers behavior as a subsystem of personality and one which can change as a result of inputs from, and interactions with, the external environment. Within this belief he highlights the influences of other people as having a significant impact on behavior (Higgs, 2001). Jung (1912/1971) describes psychological types in terms of two attitude types: *introversion (I)* and *extroversion(E)* (which relate to the characteristic focus of attention and flow of energy of an individual); and four function types categorized as rational (functions used to describe judgment and decision making) including *thinking(T)* and *feeling (F)*, or irrational (methods used to describe perception rather than decision) including *intuitive (I)* and *sensing(S)* – coming up with a total of eight personality profiles based on three dichotomies introversion/extroversion, thinking/feeling, and sensing/intuition. The Myers added a fourth pair to define an individual's interaction preferences as *judging(J)* or *perceiving(P)* postulating a total of 16 personality types. Because the MBTI is a theory of types, a person can have only one preference. Although it is possible for people to develop the complimentary style, the primary preference will always dominate the person's personality (Pittenger, 2009).MBTI represents a practical solution for HRM specialists because the whole package, including the manual, test booklets, answer sheets, and score keys, are professionally produced. (Boyle, 1995) Anyway, the test is not available to anyone, but to individuals who have completed short courses administration and interpretation of the MBTI or licensed counselors and psychologists, to college instructors and personnel who had graduate training in the theory of testing.

Big Five factor model posits that personalities can be gauged in terms of "traits", or dimensions used to categorize people according to degree to which they exhibit a characteristic. A short list of personality dimensions is distilled from a longer list of dimensions, composed by: (i) extraversion (e.g. assertive, outgoing, sociable, sense of energy, excitement); (ii) agreeableness (e.g. good-natured, cooperative, trusting); (iii) consciousness (e.g. dependable, responsible, achievement oriented, persistent); (iv) emotional stability (relaxed, secure, unworried); and (v) openness to experience (e.g. artistic, imaginative, curious, broad minded) (Barrick, Mount, 1993; Thoms, Moore, Scott, 1996). Standardized personality test determine how positively or negatively a person scores on each of these dimensions (Kreitner and Kinicki, 2001).

DISC Theory – DISC has its origins in the early 1920s when psychologist William Moulton Martson (1893/1947)) developed a theory of four emotional responses – *dominance, influence, steadiness* and *compliance*. The DISC concept recognizes that we all are a blend of the four basic personality types, ad we can adapt to certain situations (Barbian, 2001). "DISC questionnaire will provide three or even four different profiles, relating to different aspects of the personality. The *Internal* profile describes a person's 'inner' personality style, the type of behavior that can be expected when they feel completely at ease (or strong stress) and tends to remain more constant over time than the other profile types. *External* profile describes the style of personality that an individual feels is appropriate to their current circumstances. It changes considerably over time, as a person's situation and environment changes.

The *Summary* profile combines information from the other two to present a view of a person's actual behavior. Finally, a *Shift* profile summarizes the differences between the Internal and External profiles, highlighting the adaptations an individual is making to meet the perceived needs of their environment. This can be of particular interest in assessing an individual's perception of their role." (Roodt, 1997)

Personal Profile is similar to MBTI and outlines four basic personality styles: dominance, influencing, steadiness and conscientiousness. These styles are based on two continua (i) task oriented – people oriented; and (ii) fast paced verbal people – slower paced reserved types. (for example: dominant types are fast paced and task oriented, whereas steady types are slower paced and people oriented).

Predictive Index is similar to MBTI and personal profile, but it differs in that it offers "infinite variety" and "a lot more detail" in describing the user's personality. This test is based on four continua indicating whether the user tends to be: a dominant person or a team player; socially oriented, with a preference for working "with and through people" or introspective with a preference for working alone; a "patient stable" person who likes consistency, or an "impatient" who thrives on variety; or a person who needs structure and likes to have clear directions, or a "wining it" type of person who values independence.

California Psychological Inventory – measures standard behavior and takes many of its questions from Minnesota Multiphasic Personality Inventory.

Caliper Profile – a 186 question test that provides a complete assessment of an individual's motivations, strengths, and weaknesses. Primarily for management, supervisory and sales positions.

FIRO-B - an indicator of interpersonal style used to help people better understand themselves and their relationship with others. Interpersonal relationships can be assessed part-way through a coaching process. This test explains how three personal needs (need for inclusion, control, and affection) affect various interpersonal relations. This test measures the extent to which each need is expressed (e.g., whether an individual will initiate the behavior) and wanted (e.g., weather the individual prefers to be the recipient of behavior)

16 PF-5 - looks at the whole person and their personality across 16 dimensions, which are further grouped into five global factors. It is useful in high-level coaching and helps people to look at aspects of themselves outside work that might affect their ability to focus.

Thomas Killman Conflict Instrument (TKI) - is about how a person deals with conflict and looks at what you are doing in terms of conflict and whether this is for good reason or entrenched habits.

2.2. Personality test as decision making tools (in HR)

Apart from the didactic purpose of better understanding the human nature, personality tests can be applied to take different personal and managerial decisions. Below are some of the personality test applications in human resources functions decision making, which is also the focus of this research. Furthermore, taking the

assessments is not enough - the organization has to use what emerges to change policies and behaviors where necessary.

According to Chicago Tribune Distributed by Knight Ridder/Tribune Business News in 2005, psychological testing has gained sway at an estimated 40 percent of large U.S. companies, evaluating everyone from hourly employees to top executives, experts say. Businesses such as fast-food giant McDonald's Corp. swear by predictive tests, saying they reduce turnover and boost productivity and sales. Companies spend $400 million annually on employment tests of all kinds.

Among the most frequent use of personality test by the HR department is *selection*. More and more businesses now employ more sophisticated methods to determine who will be the best fit for their organization. Amid with curriculum vitae screening, interviews, competency tests, the assessment centers and role-play exercises, psychometric questionnaires designed to paint a picture of the personality, preferences and emotional intelligence of new applicants continue to be used (English, 2007, Perotin, 2001). Society for Human Resource Management's survey conducted in 2000 found that 22% of companies in USA used them. Certainly the goal is to employ the suitable people in the right position and identify the ones that suit with the company culture. Personality test such as MBTI and Big Five are applied by many companies in almost all positions in order to identify everyone's profile and better suit with the job positions. Getting to know the employees also helps managers to understand and better communicate with employees and colleagues (Biederman, 2001). Periatt et al., (2007) found a relationship between personality traits and customer orientation using the five-factor model (conscientiousness and extraversion were the strongest predictors of the customer orientation of managers).

Carried out by individuals or companies, personality tests can be a crucial tool in *career choices*. (Myers, 1985, Perotin, 2001). "An early psychometric assessment can help people to understand what working environment would suit them best - whilst providing employers with an idea of which roles would play to their natural strengths" (English, 2007). MBTI for example is used to assesses preferences and generates a list of occupations with the highest and lowest percentage matching a particular type. If these tests are used as guides for candidate placements, can avoid putting someone with a preference for a dynamic workplace and social interaction, in a position where he/she has to work alone on routine tasks. If we take the personality tests validity for granted (validity will be explained later on the material), companies using these tests ensure the employees motivation and decrease turnover (Perotin, 2001).

Even if selection decisions is the typically and common use of these psychometrics, most of organizations miss out on the questionnaires' full potential and put the psychometrics to one side. "Psychometrics, such as the MBTI or the 16PF assessment, can and should be used throughout an employee's entire working life" (English, 2007). Since personality is considered a quite stable personal characteristic ,the assessment carried out at selection or early on, represents an

important record for the employee and can continue to play a vital part in his/her development and progression through the ranks. E.g. if someone has been promoted to their first management role (from a technical specialist position), the demands facing team leaders and line managers are new and vastly different, requiring self-awareness and the requisite willingness to change perceptive differences. Using continuously the information taken from personality tests gives to the companies an advantage because of better management of recruitment and selection costs (most of these tests are not for free). Also by comprehending the psychological contract, these companies have an invaluable tool in the war for talent.

There is a widely accepted benefit of personality tests application for *team building and team management* (Micheal, 2003) because personality plays a huge role in determining how well people will fit into a team and personality tests can help managers tailor job roles to engage and retain their employees top talent. (English, 2007) declares that "psychometric questionnaires also have value in determining why a given team does or doesn't work and why a leader's 'hands-off' management style may be great to some and awful to others." MBTI , one of the most frequent used tests, from a team perspective, should help to (i) understand more about working style and identify how to develop these to be more effective; (ii) increase awareness of the team working style and thus improve communication, problem-solving and decision making, encourage appreciation of diversity and resolve conflict; (iii) understand why people react differently to change and how to support them through the process; (iv) help people understand how to communicate effectively and with different people and develop influencing and persuading skills (Willock, 2006).

There is also proved relationship between relationship between the Big Five personality dimensions and self-efficacy for participating in self-managed work groups. Research shows that "neuroticism, extraversion, agreeableness, and conscientiousness are significantly related to self-efficacy for participating in self-managed work groups" (Thoms, Moore, Scott, 1996). This is why organizations should consult personality tests when taking work organizations decisions such as whether or not to implement self-managed work groups or who should be selected to work in this type of structure. MBTI is an effective tool for developing strategies to manage the differences so that teams can function as high performers (Recar 2001).

There are many researchers believing that personality tests main goal is employee *training and development*. The identification of personality type helps in learning specifics about the employee training needs in organizations avoiding the one fit all training and enable to tailor training program and learning style to individual needs. It can also help for personal development. Once a person has taken the MBTI and discussed the results with a specially trained MBTI consultant, he/she can use the information gained to more effectively target areas for professional growth (Vogt and Peter, 1997; English, 2007). According to Michael (2003), MBTI is used in leadership development programs, where the workshop participants learn about the fundamentals of type theory – what are their types, identify their dominant

and least developed functions, and appreciate type diversity so that different types can work more effectively together, but no relationship was proved between leadership style and type.

There is a strong evidence on the literature that gender and personality profiles are related. Reynolds (2007) in her attempt to study the differences in negotiation skills between males and females caused by personality differences, discovered that even if two-thirds of men score highly as thinkers in MBTI, and two-thirds of women score highly as feelers, both men and women have other complementary skills which combined with the personality type result in almost equally effective negotiators.

Among the personality test applications is also *conflict resolution* by individuals take tests and are aware for their colleagues differences and are encouraged to think about the way one interacts with others and the impact of their style on the way they lead others, cope with change and communicate with their colleagues. The user judges himself/herself on the competencies, as do the user's subordinates, peers and immediate supervisor, than observes the gap between your perceptions and the perceptions of others. It doesn't matter who you think you are, because it's the perceptions of others that rule. This way personality tests help to get to know how others see you and identify the disadvantages impossible to recognize by yourself.

Even if personality tests might seem a great solution for many HRM decisions, using these tests alone (most of this rationale is based on MBTI research), provides an incomplete picture of managerial behavior. There is an enormous amount of management styles that go beyond the sixteen types because of the interaction of needs and personality types, that's why personality assessment is not enough (Michael, 2003).

Personality tests result management is not only a HR department responsibility. Line managers should also properly understand and take benefits of it to orient in taking decisions. Micheal suggests the application of MBTI in management development, decision making (Micheal, 2003). Southwest uses the personality assessments as a diagnostic tool to help employees identify how obstacles, stress, and potential conflict may arise, to help leaders and teams by providing them with communication tools, recognize and celebrate their differences, achieve better results and build trust (Weinstein, 2008).

2.3. Implications about personality tests

Almost all researchers of psychology and organizational behavior agree that personality affects the individual, group and organizational behavior. As widely explained above, in HRM context, personality testing is a tool for making decisions about hiring, training, promotion etc. But are we sure that the instruments we refer to (personality tests such as Big five, MBTI etc.) measure accurately this crucial individual characteristic?

Validity - The evidence of the validity (of criteria and construct) and reliability of personality tests (mainly of MBTI) is mixed at best, and should make users apply this

instrument with caution (Michael, 2003). Personality testing in the workplace, are questionable for two main reasons: predictive and differential validity (Kreitner and Kinicki, 2001).These authors literature review reveals that most widely used personality tests such as Big Five and MMPI etc., historically have been poor predictors of job performance, and the differential validity relative to race is discussable, that's why personality tests should be used with caution. In a study comparing information technology professionals using the MBTI against an information technology competency test (Livingood, 2003), no significant correlation was found between any personality type profile and competency scores.

Reliability - Reliability refers to the consistency in measurement of a test. Tests that are highly reliable are preferred because one can get the same result each time measured the same thing. If the test is not reliable, we do not know if the changes in the score are due to changes in the person we are measuring or to some type of error in the testing process. It is important for the personality tests to be extremely reliable for many reasons since the type is a stable characteristic and doesn't change throughout the life. It resulted from a "test-retest" reliability testing that even when the test-retest interval is short (e.g., 5 weeks), as many as 50 percent of the people will be classified into a different type when applying MBTI (Pettinger, 1993). There is a vast literature and meta analyses proving that personality can change over the course of a person's life, particularly if age at first measurement is low or over 50, if the retest interval is large, if individual personality are considered, and if personality aspects other than big five traits are assessed (Ardelt, 2000). The reliability data of the MBTI bring into question the stability of the test.

Utility - Unfortunately, even though personality tests are very useful for understanding certain personality dimensions, human personality is too complex to be captured in a single conceptual scheme and requires multiple perspectives (Chase, 2008). For example, although MBTI does appear to measure several common personality traits, the patterns of data do not suggest that there is reason to believe that there are 16 unique types of personality reliable or valid predictors of behavior (Pittenger, 2009).

The primary questions that should be addressed are whether these aspects of the test are unique or represent more general constructions of personality and whether other methods of personality assessment afford more accurate predictions (Pittenger, 2009). This is known also as Forer effect where an individual gives a high rating to a positive description that supposedly applies specifically to them because the terminology is so vague as to allow any kind of behavior to fit any personality type.

Personality testing are incorporated into traditional approach to personnel selection and make this process more complicated than it would appear. In their attempt to identify problems and issues in the personality tests application in typical selection practices, Arthur, Woehr and Graziano (2000) discovered that: (i) there is a weak obtained relationship between personality variables and job performance; (ii) self-selection and choices about situations involving personality could be more difficult to recognize and anticipate a priori than are corresponding choices involving

ability; (iii) even if it proved that the complexity of personality structure is an integrated adoption of many diverse elements, complex models of personality structures may be more attractive to academics than to applied professionals, because these precise models will be nearly impossible to use in applied settings; (iv) psychological test can be biased due to the test instructor or the test taker social desirability impression management; (v) in order to avoid legal restrictions (discrimination) one should use measures of normal personality instead of those developed for clinical and diagnostic purposes.

2.4. Relationship between Personality Tests and Emotional Intelligence

Another concern that raises the question of validity is consistency (or not) between personality tests results and Emotional Intelligence (EI). EI includes "abilities such as being able to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate ones moods and keep distress from swamping the ability to think; to emphasize and to hope" (Goleman, 1995 cited by Kreitner and Kinicki 2001, pp.158). MBTI considers introversion and extraversion attitude as mutually exclusive dimensions, while not everyone is either extraverted or introverted, and these dimensions should be considered traits of character, but rather mechanisms that an individual can switch on or off according to the situation (Jung, 1923/1971, pp.201). Also there is little evidence to substantiate the notion that everyone has a particular type. People can fall into a middle ground which may appear when a preference for a function or attitude is slight (Michael, 2003).

Higgs (2001), in his literature review and field research covering 177 managers, identified a relationship between MBTI and EI (strong positive relationship between the MBTI dominant function of intuition, and strong negative relationship with sensing), but not a strong or comprehensive one. The positively established relationship with influence falls within the developable elements (MBTI intuition and extraversion with EI elements). MBTI can be helpful to be used as an element of a development process, which will support the development of managers EI, focusing on developing behaviors related to their less dominant functions.

2.5. Culture implications in Personality Testing

There has been severe criticism of validity and reliability problems associated with a blind importation of Western instruments into non-Western countries. The assumption that personality traits are universally present across cultures is very doubtful. Also the importing of personality theories from US to other countries should be rejected because the measure and the relevant theory affect the development of a local theory (Chan, 2005). Another issue might be the translation and interpreting of personality tests in native languages in such a way to fully encompass the local reality associated with a concept. The complexity of this issue requires that personality assessment should be done by professionals with appropriate training and administered by individuals with proper knowledge in psychology.

3. Research methodology

Even if studying the personality testing and its implications in the workplace has received attention from various researchers all over the world, Albania lacks of studies focusing on personality testing as a decision making tool in various management decisions. This article aims to discover and analyze the application of personality tests in companies operating in Albania and understand more not only about the proved implications but also for the perceptions managers have about these technique application.

The author goal was to mostly identify if: (i) personality tests are applied in companies operating in Albania; (ii) which are the most wide spread personality tests used; (iii) how personality test results are managed the to take decisions about HRM; (iv) what are the expected benefits and the perceived validity of these tests by HRM.

An understanding of the situation was enabled by the results achieved by the qualitative semi structured interview. In order to provide a good basis for analyzing, the authors reviewed research articles mainly retrieved online by academic databases such as Jstore, Ebscohost, Academic Search Premier, Emerald etc. and book chapters in organizational behavior, human resources management and psychology etc. The researchers also used several data of the companies HRM manuals and also different forms and templates (job descriptions, selection tests, interview format, performance evaluation form etc.) to identify if and how personal characteristics such as personality traits are use in HRM practices.

The interview (Appendix 1) was designed based on the literature review and aimed to answer the research questions. The interviews offered good qualitative insights on the data provided by the desk research. In order to analyze the application of personality tests in organizations operating in Albania, the researchers used a selective sample of 21 companies headquartered mainly in Tirana. Since personality tests are more emergent and visible in the service sector, all questionnaires were distributed in companies operating in this sector (telecommunication, banks, public administration, project management, not profit organizations etc.). There were no small and medium enterprises participating in the survey, assuming that these businesses don't have a well-structured unit dealing with human resource management and appropriate staff to apply and use personality testing.

The selected organizations for the survey have a special structure dealing with human resource management, 45% of them have a special HRM department or directory, 30% HRM structure is part of another unit, and 25% of the cases HRM activities are performed as additional tasks of a single managerial position. In the cases where there is a HRM department or special HRM structure, there is mostly a special position dealing with recruitment and selection which is more likely to apply the personality tests, that's why the researchers choose to interview this position or the HRM manager to increase the interview validity.

The list of questions was first distributed by email and filled electronically by HRM department staff members. Than an more detailed semi structured interview

followed with the companies which apply personality testing. Due to the short period the researchers had to distribute and collect data (October – November 2009), the response rate was 70%. The biggest limitation of the study is the small number of companies in our sample which applies personality testing, which prevents the researchers to make absolute generalizations, but rises the need for further research to identify the reason why these tests are not being used.

4. Research findings

From the companies included in the research, only a small percentage of 24% apply personality testing in the workplace. While almost 85% of the companies use competency tests and other job related tests. When used, the kind of personality test used varies. Only one company uses the Big Five, while most of the other companies use different personality tests. Are the company headquarters (since all the companies that use personality tests are branches, or subsidiaries of international companies) that identify and suggest which test to use. When asked about the period since the company is applying personality testing in the workplace, the responses were vague because most of the interviewed HR managers/specialists were new at the job and absent of this institutional memory. The personality tests are applied not for every position in the company but mainly for managerial positions (when asked in the in depth interview – this concerns the higher managerial level such as chiefs of departments and their managerial staff subordinates). The researchers could not identify special positions for which these tests are used for. In all the cases, personality and other psychometric results from the test, are filed to the employee records. The expected benefits by HR staff from these psychometrics is to better know the employees and predict any future decision or behavior.

If applied, psychological tests in general and particularly personality tests are used in all the cases for selection decisions. These tests are used together with other selection techniques and in most of the cases represent a particular percentage in overall candidate evaluation (for a new candidate or internal movement through promotion and transferring). The interviewed declared that used personality testing for career planning, but when asked about specifics of career planning, the researchers realized that only a small percentage (less than 10% - means only 2 companies) have well-built and clear career plans for their companies. These companies have also talent management programs but more than personality tests, use assessment centers to identify the most prominent candidates. The interviewed declare that psychometric data are used in teambuilding decisions to be sure that there is a diverse group according to their personality profile.

HR managers or specialist believe that psychological tests in general and particularly personality tests are important in HRM decision making. Even if they declare that had trainings for these tests, still believe that further professional training for them is needed to properly use and take advantage of these tests. The researchers were not able to retrieve historical information about the HRM practices before the application of personality testing – most of the time because the interviewed were new at the job, or because the company was young.

Among the most interesting findings of the research was that HRM specialists believe that their companies don't get the maximum from psychometric tests because none of them is in native language (English) and there are some ambiguous questions

for the Albanian cultural fit. All the interviewed are aware that these tests are important but should be used with caution and never as the single instrument for making decisions.

5. Conclusions

Personality tests are becoming an important instrument in the hand of HRM and other managers with the goal to better know and manage people in organization. The literature review showed that there are plenty of personality tests available for use and can be applied in selection decisions, career choice, training and development, team building and team management, conflict resolution etc. Even if the diversity management is widely accepted, these specific tools developed such as personality tests should be used with caution because the research shows that validity and reliability of these tests is often doubtful. The research carried in companies operating in Albania, revealed that psychometric tests in general and personality test in particular are not widely applied. In cases when used, their main purpose is the most primitive one, selection decisions, and in none of the cases was observed the employee development purpose (considered among the most important benefits of personality tests).

More than the perceived validity and tests utility, the researchers believe that this low percentage of companies applying personality tests is a predicted behavior of not developed HRM role in companies operating in Albania. Still the HRM role is considered an operational and not a staff department offering innovative solutions for talent management (this is an researchers assumption that should be proved with proper research). Finally the authors would like to emphasize the fact that this is a pioneer study and further research is needed to analyze the issue in detail and especially the reason why personality testing so widely used all over the world is in such an embryonic status in Albania.

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Appendix 1

QUESTIONNAIRE FOR PERSONALITY TESTING IN THE WORKPLACE

Thank you for the time spending by participating in our research aiming to analyze the use of personality tests in the workplace. We ensure you that the researchers will keep the answers results private and the data taken from the questionnaire will be used for research purpose only. For further details regarding this research, you are invited to contact the authors: Blendi Gërdoçi, MBA (gblendi@yahoo.com; Sidita Dibra, MBA (s_dibra@yahoo.com)

Organization: .....
Number of employees .....
Your position in the company:.....

1. Which is the structure responsible for HRM in your Organization?
a. HRM department/directory; b. HRM sector
c. specialists positions in another department d. other
.....

Please describe the structure responsible for HRM.
.....
.....

2. What kind of tests do you use for human resources management decisions?
a. intelligence tests b. psychomotor and mechanic tests c. personality tests
d. psychological tests e. Ability (Competence/Skill) Tests f. other_____

3. What kind of psychological tests do you use in the workplace?
a. (MBTI) Myers Brigs Type Indicator b. Minnesota Multiphasic Personality Inventory
c. The Big Five d. other _____

4. When did you begun the application of psychological tests?
……
……

5. For which positions do you mainly apply psychological tests?
a. strategic managers b. middle managers c. operational managers d. all managerial positions
e. all employees f. other
_____

6. Please mention some of the typical job positions for which you apply psychological tests.
.....
.....

7. Do you document /file the psychological tests results? a. Yes b. No
If yes, how and why do you do that?
……
……

8. Do you include psychometric characteristics as specifications in job descriptions? a. Yes b. No
If yes, what kind of psychometric characteristics do you include as specifications in job descriptions?
……
……

9. Which are the expected benefits from the psychological test application in your company?
……
……

10. Do you use the psychological tests results to take decisions about candidate selection? a.Yes b. No
If Yes, please explain how psychological tests results impact your decisions about candidate selection.
……
……

If Yes, please explain how do you integrate psychological tests with other tests and techniques in selection.
……
……

11. Do you use the psychological tests results to take decisions about career planning? a.Yes b. No
If Yes, please explain how psychological tests impact your decisions about career planning
……
……

12. Do you use the psychological tests in training and development plans decisions? a.Yes b. No
If Yes, please explain how psychological tests impact your decisions about training and development.
……
……

13. Do you use the psychological tests in team building? a.Yes b. No
If Yes, please explain how psychological tests help you to choose the team members for different projects.
……
……

14. Do you include personality traits as performance evaluation criteria? a.Yes b. No
If Yes, please mention some of them
……
……

What's the overall importance given to personality traits among other performance evaluation criteria?
……..……
……

15. Do you use the psychological tests in performance appraisal decisions? a.Yes b. No
If Yes, please explain how psychological tests help you in your employees performance evaluation.
……..……
……

16. Do you use the psychological tests results to take decisions about promotion or transferring? a. Yes b. No
If Yes, please explain how psychological tests results impact your decisions about promotion/transferring.
……..……
……

17. Please mention and explain how your company applies psychological tests in/for other areas/reasons.
……..……
……

18. Based on your opinion as a HRM specialist/manager, do psychological test measure the employee characteristics required for a higher performance? Explain.
……..……
……

19. Which are some of the limitations that you think psychological test application has?
……..……
……

20. Have you received any training for using these psychological tests in the workplace? a.Yes b.No
If yes what kind of training did you receive?
……..……
……

If no, do you think it is necessary? What would you need to learn about?
……..……
……

21. Comparing with the previous period when psychological tests were not used, are you able to identify the benefits/difficulties of these tests in HRM issues decision making?
……..……
……

22. Did you adopt/modify the application of psychological test used during the years? a.Yes b.No
If Yes, why did you do that? Please explain
……..……
……

Were cultural differences one of the reasons to adopt/modify these test application? Explain.
……..……
……

23. Do have any additional comments about psychological test application in the workplace?
……..……
……

We would appreciate any supporting document (application form, interview evaluation form, performance appraisal form etc.) you can attach to this questionnaire.

Thank You!

ROMANIAN TRADE IN SERVICES UNDER THE IMPACT OF GLOBALIZATION

Diana Soca

Abstract

The market globalization tendency means acceleration and at the same time, thoroughness of external exchanges of goods, services and capitals, accompanied by a greater international mobility of resources and by an increased competition.

In the globalization context, trade in services holds a more and more important role, given the fact that such activities reached to a point in the world's developed countries that they contribute by 70% in GDP creation and in employment, and they represent 65-70% of FDI's total stock.

As EU member, Romania is directly interested in reducing the gaps that separate it from developed countries in terms of both macroeconomic structure as well as volume and structure of its trade in services.

Keywords: Globalization, Trade in services, New economy of services

JEL Classification: F10, F13, F60, O52

1. Introduction

To a larger extent, the economic globalization process may be defined as a dynamic process of increasing the interdependency between national States as a result of their expansion and deepening of connections between them and different spheres of economic, political, social and cultural life.

Tackled from economic and financial point of view, globalization may be defined as strengthening and expansion of connections between national economies on the global market of goods, services and especially capitals.

Globalization became an implacable objective process that sometimes travels by a tremendous speed, encompassing almost all world States.

The globalization determining factors are the following:

- Liberalization of trade in services, especially in the fields of telecommunications, insurances and banking, which stood for the dominant tendency in the seventies in USA, continued in the eighties in Great Britain and subsequently in the European Union and Japan. The tendency also continues nowadays, including the countries of Central and Eastern Europe, among which Romania as well;

- Liberalization of capital markets as a result of gradual elimination of the obstacles in money and capital circulation, which stands for an advantageous step in the creation of global financial markets;
- FDI liberalization;
- Common interest of the humanity in preserving the environment, materialized by the advent, starting with the seventies, of new concepts on global calling (common goods of the humanity, sustainable development and ecologic security), which stood for new factors activating the globalization process of the world economy.

Such evolutions were based on the technical – scientific revolution in the field of information and communication, marking out the end of the 20th century (global liberalization of exchanges), the extension of transnational corporation related activities, economic interstate integration.

Taking into account the complexity of globalization related phenomenon and its consequences, more and more experts speak out nowadays to take into account both facets of the matter.

Emphasizing the incontestable advantages of free economic exchanges, without any obstacles, between nations, the globalization supporters predominantly emphasize the advantages generated by it, such as: increase of productivity and improvement of life standards by reducing the production and commercialization costs (as a consequence of economies of scale), easiness in transaction performance (within which the exchange of merchandises is made almost in real times with the negotiation, resorting to modern communication systems – fax, internet, etc.), increase of the speed by which commercial, financial and technological operations are carried, creation of markets more detached from certain sources or traditional areas, etc.

An efficiently implemented globalization, such as the successful development of a great part of East Asia, may contribute to the progress of emerging countries, but also of developed ones, asserts Joseph E. Stiglitz, laureate of Nobel Prize for economic sciences.

Nevertheless, on the other side, globalization may represent a threatening source of workplaces by opening the frontiers to imported, more competitive products, or by massive dismissals of personnel, as a consequence of great industrial corporations' merging, or, it can be a source of financial distress through speculative capitals (for ex., the case of Asian countries, where the financial crisis triggered social havocs due to speculative capitals that abandoned the region in the mass).

One of the major mutations in the world economy under the impact of globalization is the tendency of national economies towards economic structures in which service sector is predominant. Some authors called this phenomenon a new type of society that may be characterized as an "economy of services", with specific characteristics different from the "industrial" or "postindustrial" development model.

In perspective, the development of the "economy of services" must be considered as a global progress since it does not only involve a growth in this sector, but also in the entire economy, as the service related functions are integrated in multiple activities from different economic sectors.

Its main characteristic is the horizontal integration of all productive activities, given the fact that each year, services develop on an unlimited basis (financial, telecommunications and transport, maintenance and engineering).

The essence of the "new economy of services" includes aspects aiming to:

- Maximize the combined usage of products and services during their life cycle;
- Performance and real usage of products integrated in a production-consumption system;
- Operation of production-consumption system as a system of slow replacement of goods, based on the extension of products' life cycle according to the 4Ps – reusage, repair, reconditioning, recycling – ensuring a sustainable development without restricting the economic growth or the social or technical progress.
- Passage to a small series production that contains products partially or totally adapted to customers' requirements, complex and diversified, claiming a high – qualified workforce as well as high research expenses/ increase of budgets allotted to research.

2. Internationalization of service related activities and trade in services at EU level

Services were considered, not until recently, as having a more reduced capacity to be traded in comparison with goods, due to the characteristics that distinguish them from the goods (intangibility, impossibility to stock them, inseparability, changeability).

The reality infirmed such considerations, since the international transactions with services are nowadays a major component of the international value stream and a preoccupation for decisional factors of commercial politics, as well as for the participants in multinational negotiations regarding the liberalization of international trade.

The production related globalization and the tendency of liberalizing the trade in merchandises to the EU spirit also extended over the immaterial sphere, while the demand for services became mare exigent, more informed, more homogenous and more pervious to the efforts undertaken by specialized companies to valorize their offer and production capacities.

The service related transactions are stimulated by the following factors:

1. New technologies such as internet and e-commerce

2. Opening of commercial activities through high – level negotiations such as GATS Rounds, which emphasize the competitiveness of those markets specialized in specific services.

3. Regional commercial blocks such as EU or NAFTA - They intend to eliminate the barriers between their members, the fosterage of international trade in services such as air transport or financial services, which influence demand by increase of great markets

4. Legislation and governmental support. The governments of countries such as India, Singapore, Indonesia, Brazil, Mexico, encourage the activity of their own service markets.

5. Efficient transport infrastructure, high-performance international mail services and cheap flights. All of them had an effect over the cost of international services, rendering them cheaper and more competitive.

According to the level of the necessary investments, of the presence and control level of exporting companies on the foreign market, the service internationalization may be achieved in three ways:

- By export – this situation supposes a minimum deal of investments, control and presence. In such a case, the tenderer may externalize its activity without leaving the country of origin. It exports services through merchandises, using, as in the case of the export of goods, the distribution network on the foreign market or concluding sale agency agreements with local service tenderers. In addition, the sale may also be achieved directly towards the user by means of telecommunication networks (for telephone services, added value telecommunication services, certain banking services) or the companies that dispatch via mailing, flexible disks of international financial information, consultancy technical reports, etc.
- By agency – this situation supposes an average level of investments, control and presence on the foreign market. The customary means of internationalization through agency are the franchise, the licensing, partnership and distribution through joint ventures – i.e. involvement of a third party belonging to the foreign market. The investments may be financial or take the form of management and consultancy. In this case, the objectives of the internationalization strategy are quality maintenance and control of the services provided. Transport (on sea, air, road), restaurant and hotel chains, fast-food chains, teleshopping, email are classic examples used for internationalization through mediators.
- By FDI – this situation supposes a maximum level of investments, control and presence on the foreign market. This category includes the most conventional strategies of service internationalization. They intend a direct interaction of the tenderer with the user or clients by means of its own branches, subsidiaries or even by means of acquisitions and amalgamations with companies on the foreign market.

In reality, very few services are internationalized, as people resort to a single means of entering the foreign market.

The technical mutations within services, as well as those transferred to service delivery system, allow or even oblige companies to simultaneously resort to more means of internationalization that suppose different levels of presence, control, investment related effort and risk.

According to WTO, Europe, as a region, holds the highest percentage in service world trade, by over 43.3% from exports and over 30.7% from imports in 2011, followed by USA (9.2% export and 7.7% import), Japan (4.5% exports), Singapore (4.3% exports), China (7.3% from imports) and India (5.2% from import).

EU registered a growth by 11% in exports as opposed to the previous year, and in terms of imports, the growth was by 9% as opposed to 2010.

If we consider EU as one single entity and we exclude the commercial exchanges of services carried out within EU, then the EU-27 becomes the greatest importer and exporter worldwide (24.7 of the global exports of services and 21.1 of the total imports of services).

Five of the first member States of EU are on the list of the main 10 service exporters worldwide, holding important places in global service exports: Great Britain – 6.6% second place, Germany – 6.1% third place, France– 3.9% 5th place, Spain– 3.4% 8th place, Netherlands – 3.1% 9th place. The other positions are adjudicated by USA as well as by some emerging countries such as China – 4th place and India – 6th place, which have recently entered the hierarchy of the Top 10 world exporters.

Globalization, propelled by the progress registered in information and telecommunication technology, by a more emphasized economic opening and by increase in size and sphere of geographic coverage pertaining to multinational companies, determines an extensive integration and interdependency of the markets. Nevertheless, at the same time, the economic crisis that started at the end of 2007 and which is the deepest in the post-war period, still continuing nowadays, proved that a more emphasized integration of markets means that the economic and financial shocks shall be sent across the international borders faster than previously and there shall be no country in the world not affected by the global interdependencies.

The amplification of service related economic relevance in all modern economies, implicitly in EU, must firstly be associated with the accelerating globalization process of such activities and with the growth of service related capacities to stand as object of international exchanges. This process is manifested in the form of two inter-correlated dimensions, a sustained growth of the trade itself (trans-frontier with services) and dynamic expansion of FDI flows within services sphere.

3. Trade in services in Romania

The statistics published by RNB regarding the evolution of payment balances in 2011 shows that two years after consecutive contraction, trade in services in Romania regained control in 2011, on a one-year delay as opposed to trade in goods, which recorded an increasing line ever since 2010. After a 19% decline in 2009, and by 6% in 2010, the value related volume of Romanian service exports increased by 10% in 2011, totaling 7.3 billion euro. The service imports increased by 11% in 2011, reaching to 6.9 billion euro.

Following the analysis of service exports dynamics in Romania on the three major components – transport, tourism and "other services", we can notice that the overall relaunch of service exports in 2011 was first of all due to the increase by 18% of transport related collections (after their decrease by 23% in 2009 and by 7% in 2010) and increases by 18% of tourism collections (after the reduction by 35% in 2009 and by 3% in 2010). In exchange, the growth rate of services included in the category "other services" was of only 4% in 2011 after a decline of 13% in 2009 and 7% in 2010. Along with construction related services, this heterogeneous component encompasses, among others: communication, financial and insurance services, informatics, legal, consultancy, advertising, marketing, research – development services, etc., i.e. all services used as inputs in the production process and decisive for the growth of efficiency and competitiveness in all fields of activity carried out by companies, reason for which they are also called business services or services provided to enterprises.

The structure of service exports in Romania on the three components shows that in 2011, transport held 31% of the total collections from service export, tourism recorded 14% and services encompassed in "other services", 55%.

We can notice a relatively high percentage as compared to global average (21% in 2011) of transport, which is considered as pertaining to the category of traditional services. Instead, the percentage of tourism services is very low as compared to global average (25% in 2011) as well as to our country's appreciating touristic potential.

The continuous growth of "other services" component in Romania's total exports and the reaching of 55% threshold in 2011 – similar to the European global average, reflects qualitative mutations in the Romanian structure of trade in services, since this component includes the service category considered advanced services.

Visa removal for Romanian citizens and the possibility of free circulation in Schengen territory, as well as the right of Romanian citizens and companies to settle on EU territory has a significant important for the Romanian emerging private sector, given that this right offers the possibility to Romanian citizens to initiate and deploy independent economic activities. Such new opportunities were open for Romanian small providers of business services and especially professional services (engineering, architecture, informatics) and implicitly for Romanian export of services.

The exports of certain categories of services exceeded in 2011 the imports, generating commercial excesses. It is about information services (of an excess of 333 million euro), advertising, marketing and public survey services (210 million euro), communication services (176 million euro), construction services (74 million euro), architecture, engineering and other technical services (64 million euro) and research-development services (48 million euro).

On the other side, in important service categories, imports systematically exceeded the value of exports, as Romania registered structural deficiencies, which reflects competitive disadvantages in the related fields. In particular, we refer to legal

services, accounting and managerial consultancy services (-344 million euro in 2011), financial services (-258 million euro), insurance services (-184 million euro), audio-visual services, license fees and copyrights (-136 million euro).

Nevertheless, the reduced financial capacity of Romanian service provider companies, the lack of certain skills to connect to global networks, along with the absence of international fame, make it impossible for now to notably expand under the form of FDI on those service markets extremely competitive of EU member States. It is expected that benefits for the Romanian service sector to rather come from an increased involvement of EU member States on the Romanian territory under the form of FDI, as their increased inflow may attract modern technologies, know-how and organizational skills, which are essential for the modernization of the national service sector.

Modernization, in its turn, may lead to growth in diversity, quantity and quality of services provided both to final consumers as well as intermediary inputs intended to other branches of the national economy, of a favorable impact over competitiveness growth when it comes to Romanian products on foreign markets.

A service sector of which the perspectives are among the most auspicious ones regarding the contribution to added value, exports and foreign currency collections is represented by tourism.

It is well known that in terms of beauty and diversity of natural landscapes, of spiritual, cultural and historical inheritance, Romania is situated among the most endowed countries in the world. The valorization of its immense touristic potential is possible through mobilization of national efforts materialized in drafting efficient sector policies. Their development depends upon settlement of internal problems (unemployment, insurance of a significant offer for national consumers, creation of conditions for the operation of a real and loyal competition of benefic effects over internal prices and implicitly over life standards) as well as upon the intense Romanian integration on the European market, providing benefic services and products for the health and comfort of European consumers.

In addition, it is necessary to discover new funding sources and to attract new capital investments for the execution of vital projects regarding the development of touristic activities, construction of a modern road network, modernization of the existent touristic base, building of new touristic and recreation centers).

Romania has a significant export related potential that has never been sufficiently valorized so far as it is the case of certain services such as constructions, information services (for which our country has a highly qualified workforce in excess in fields such as electronics and software industry), medical services, professional services (engineering, architecture, technical consultancy). The European culture, the high educational level in science and profession, the relatively low level of wages and life expenses provide a potential cornerstone on which shall lay the future development of certain competitive advantages in service related sphere.

4. Conclusions

The extent to which the Romanian economy shall be able to cope with high demands regarding its integration in the European structures depends upon the following:

– Our country's endowment of production factors and valorization of the opportunities it disposes in order to consolidate its capacity to generate service flows in service sector

– The extent to which, in terms of decisional factors, the service related strategic role shall be apprehended in the process of building a new modern economic structure, as well as upon the means by which this apprehension shall be materialized in a coherent politics of development in the national service sector.

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