

An Estimation of International Finance Development in the OIC Countries

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ABSTRACT

This study aims to estimating International Finance Development in the Organization of Islamic Countries (OIC) in 2009. To do so, we have applied the so-called Morris unweight index and used 8 indexes to quantify the degree of International Finance Development in the OIC countries. In addition, in this paper, we used the data of International Finance variables for 2009 from SESRTCIC (Statistical Economic and Social Research and Training Center for Islamic Countries) center that reported in 2012.

The results indicate that 2.17 percentage of the OIC countries (only Turkey) are developed, 2.17 percentage of the countries are Relatively Developed (Indonesia), 4.35 percentage (Kazakhstan and Malaysia) are Relatively Underdeveloped and 91.3 percentage of the OIC countries (other 46 countries) are underdeveloped.

Classification: JEL, F41, B16, H11

KEYWORDS: International Finance, Development, Morris index, OIC Countries.

1. INTRODUCTION

International economics is primarily concerned with trade among nations and the economic impact of such trade. Economists often refer to open market macroeconomics international finance. Financial economists often include the study of international financial markets, corporate finance and investments under the discipline of international finance. International finance is distinguished from domestic finance in that it involves relationships among entities in different countries with different laws, customs, policies and currencies (Obstfeld, M. 2008 & John D. Burger and Francis E. Warnock 2003).

Internationalization of firms and economies is increasing as communications, transportation, and information and trading systems become increasingly sophisticated. Firms are finding new markets and resources outside of their traditional regions of operations and many countries are frequently opening their economies to increased foreign competition. Many economies, particularly in Asia and Latin America are growing in sophistication and industrialization, presenting numerous opportunities for import and export. Thus, more opportunities are opening for individuals with an understanding and background in international finance. As countries within the world economy become more dependent on one another, knowledge of international finance becomes a more valuable asset (Ventura, J. 2009).

An efficient financial system is one of the foundations for building sustained economic growth and an open, contestable economic system. At its best, finance works quietly in the background, but when things go wrong, financial failures are painfully visible. Both success and failure have their origins largely in the policy environment. So while the widespread failures of 1997–98 have receded in memory, it is important not to relax policy vigilance (Barry W. Ickes, 2008).

The researches have reinforced the empirical evidence pointing to a strong and independent causal role of the sector in promoting growth. More recently, the researchers shown that well developed financial systems are associated with faster growth in the incomes of the poor. Thus, finance helps the poor catch up with the rest of the economy as it grows. Even at the same average income, economies with deeper financial systems have fewer poor people. These research findings have persuaded numerous countries to sharpen their policy focus on the sector (Raghuram, G. Rajan 2006).

Considering the above-mentioned points, the main purpose of the present paper is to measuring the degree of development in international finance sector by applying the so-called morris unweighted index in

the Organization of Islamic Countries. In order to accomplish the purpose, the following research questions will be examined.

1. What is the level of International Finance Development in each of the OIC countries, according to Morris unweighted index.
2. What is the ranking of the OIC countries by amount of international finance development.
3. According to index of International finance development. Which country of the OIC is Developed and which country is undeveloped.

2. MATERIALS AND METHODS

In order to investigate the research purpose, The morris unweighted index which measuring the amount of development, will be introduced and analyzed in the following part.

2.1. Introducing Morris Unweighted Index and Its Application in Determining International finance Development

For the first time, this method was utilized in 1990 to rank 130 countries in terms of Human Development Index by UN. The method was called human development index. The stages of the method will be represented below. (Jafari Samimi, A. and S. M. Hosseini 2008)

First stage: this stage involves identifying and defining the related index for privation recognition or enjoyment of the provinces in terms of direct or indirect relationship with the business sector. A great amount of attention should be devoted to index identification as well as definition of statistic concepts in this stage. Hereby, in this stage, matrix indexes $IN(n \times m)$ will be formed in which the lines represent provinces and columns represent indexes.

$$IN (n \times m) = \begin{bmatrix} IN_{11} & IN_{12} & IN_{13} & \dots & IN_{1n} \\ IN_{21} & IN_{22} & IN_{23} & \dots & IN_{2n} \\ \cdot & & & & \\ \cdot & & & & \\ IN_{m1} & IN_{m2} & IN_{m3} & \dots & IN_{mn} \end{bmatrix}$$

Second stage: The second stage involves using the calculated matrix indexes of the first stage; minimum Min_j and maximum Max_j should also be identified. In other words, by identification of Min_j and Max_j of the indexes the scope of the privation of the provinces would be calculated in terms of all indexes.

Third stage: the third stage concerns defining the amount of privation for each of the provinces with consideration of the chosen indexes of the first stage and of Min_j and Max_j of the indexes of the second stage. Therefore, privation of each province is defined as:

$$I_{ij} = \frac{Max (IN_{ij}) - IN_{ij}}{Max (IN_{ij}) - Min (IN_{ij})}$$

In which I_{ij} is the amount of privation of the i province in terms of j index.

Fourth stage: While the amount of privation for each province in terms of each index is calculated, the overall privation coefficient of the provinces was not identified, yet. Thus, in this stage the main index of privation for each province in comparison with other provinces will be calculated through combining other introduced indexes. In order to calculate the comparative privation and convenience of the provinces, the sum of indexes amounts of the third stage should be divided to the number of used indexes. The following formula is the result of such process:

$$D_{i,j} = \frac{\sum I_{i,j}}{n}$$

Fifth stage: the last stage concerns measuring the index of development of the sectors. In this stage, the index is calculated from the difference of 1 from the mean of D_{ij} privation.

$$(BDI)_i = (1 - D_{ij})$$

2.2. The Data

In this paper, in order to determining the international finance development by the above introduced model, we employ 8 index of international finance sector for 46 OIC countries for 2009. The eight indexes to estimating international finance development are consisting of:

1. **Balance of Payments: Trade Balance** is calculated by subtracting the "Total Imports" from the "Total Exports".
2. **Balance of Payments: Invisible Balance** is calculated by subtracting the "Trade Balance" from the "Current Account".
3. **Balance of Payments: Current Account** is the sum of net exports of goods, services, net income and net current transfers.
4. **External Public Debt: Long-Term:** Comprise the long-term external obligations of public debtors, including the national government and political subdivisions and autonomous public bodies, and the external obligations of private debtors that are guaranteed for repayment by a public entity.
5. **Foreign Direct Investment:** is defined as investment that is made to acquire a lasting management interest in an enterprise operating in a country other than that of the investor, the investor's purpose being an effective voice in management of the enterprise. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments.
6. **Rate of Change in National Currency against the US Dollar:** is the annual changes in the rate of exchange; end of period.
7. **Rate of Exchange: End of Period:** is the market rate where available, central bank rate otherwise.
8. **Rate of Exchange: Period Average** The simple arithmetic mean of the monthly figures, which are themselves similar averages of shorter periods.

We used the data of above variables for 2009 from SESRTCIC (Statistical Economic and Social Research and Training Center for Islamic Countries) center that reported in 2012.

Due to data limitations, this study estimated international finance development index for 46 countries from the total 57 OIC countries.

3. RESULTS AND DISCUSSION

According to the morris unweighted index and regarding international finance variables, in this step we estimated and determined the amount of international finance development for 2009 in the OIC countries that is indicated in table 1.

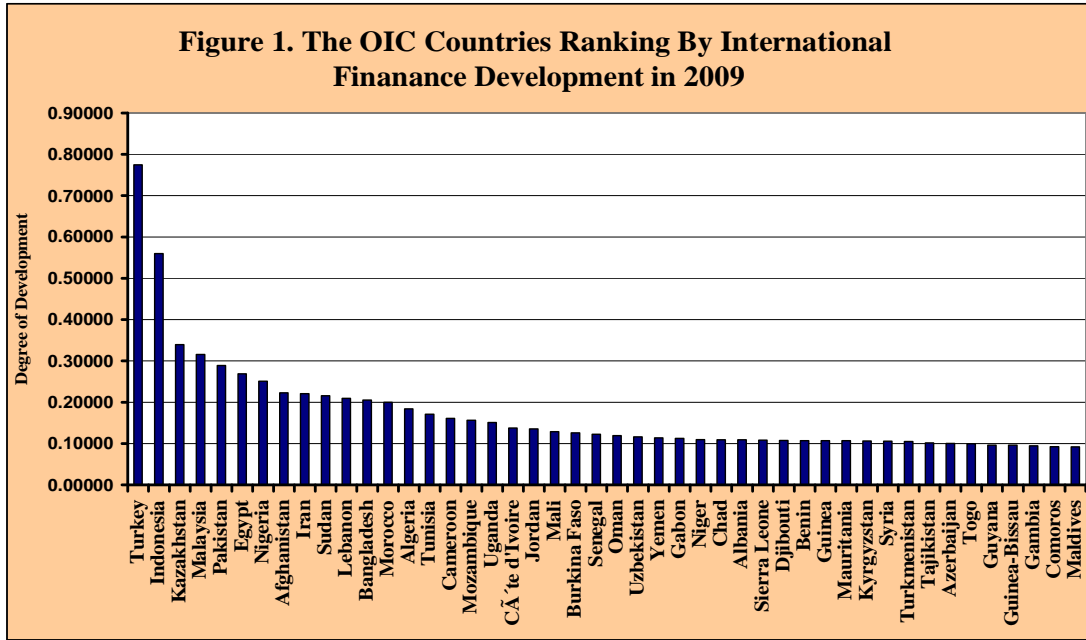
Table. 1 indicates that the greatest amount of international finance development that is equal 0.77 is related to Turkey. After Turkey the higher mark is equal 0.56 and related to Indonesia. Also, the information of table indicates that the difference between the estimated scores of international finance development between OIC countries are varied between minimum 0.09 score and maximum 0.77 that shown deep gap in international finance sector performance among OIC countries.

Table 1. International Finance Development in the OIC Countries in 2009

Countries	Degree of International Finance Development	Rank
Afghanistan	0.223	8
Albania	0.109	30
Algeria	0.184	14
Azerbaijan	0.100	40
Bangladesh	0.205	12
Benin	0.107	33
Burkina Faso	0.126	22
Cameroon	0.161	19
Chad	0.109	16
Comoros	0.092	29
Côte d'Ivoire	0.137	45
Djibouti	0.107	32
Egypt	0.269	6
Gabon	0.112	27
Gambia	0.095	44
Guinea	0.107	34
Guinea-Bissau	0.096	43
Guyana	0.096	42
Indonesia	0.56	2
Iran	0.221	9
Jordan	0.135	20
Kazakhstan	0.339	3
Kyrgyzstan	0.106	36
Lebanon	0.209	11
Malaysia	0.316	4
Maldives	0.092	46
Mali	0.129	21
Mauritania	0.107	35
Morocco	0.200	13
Mozambique	0.156	17
Niger	0.109	28
Nigeria	0.251	7
Oman	0.119	24
Pakistan	0.289	5
Senegal	0.122	23
Sierra Leone	0.108	31
Sudan	0.216	10
Syria	0.106	37
Tajikistan	0.102	39
Togo	0.100	41
Tunisia	0.171	15
Turkey	0.774	1
Turkmenistan	0.105	38
Uganda	0.151	18
Uzbekistan	0.116	25
Yemen	0.114	26

Source: Calculated by Author from SESRTCIC Center (2012)

Regarding to the information of table 1. the OIC countries were ranked based on the Score of international finance development and indicated in figure 1. As the figure shows, that the three top rank about international finance development score among the OIC countries, are related to Turkey, Indonesia and Kazakhstan respectively and three countries at the bottom ranking, respectively are Gambia, Comoros and Maldives.



Source: Table 1.

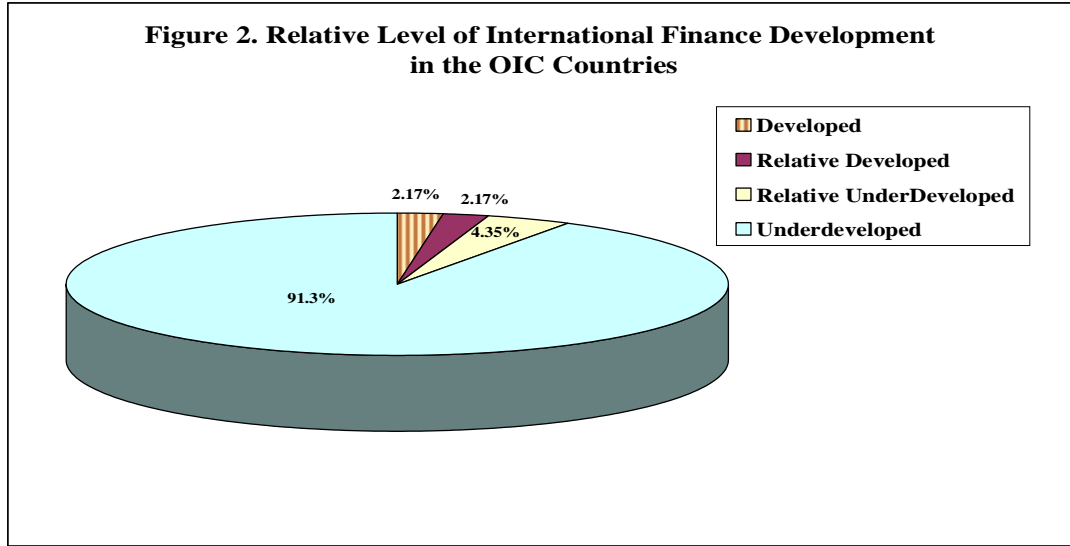
Based on determinant of international finance development by morris unweighted index in table1. the Relative Level of International Finance Development in the OIC countries are calculated and shown in table 2. According to the information of this table the only developed country in the international finance sector, among the OIC countries, is turkey. Indonesia is Relatively Developed and two countries which are Relatively Underdeveloped in international finance sector including of Kazakhstan and Malaysia. The remaining 42 countries in this area are undeveloped in international finance sector.

Table 2. Relative Level of International Finance Development by Morris Index in the OIC Countries

Degree of Development	Number of Country	Country Name and Normalized Score	Level of Development
Low than 29.9	39	Afghanistan(28.8) ; Iran Sudan Lebanon Bangladesh Morocco Algeria Tunisia Cameroon Mozambique Uganda CÃ te d'Ivoire Jordan Mali Burkina Faso Senegal Oman Uzbekistan Yemen Gabon Niger Chad Albania Sierra Leone Djibouti Benin Guinea Mauritania Kyrgyzstan Syria Turkmenistan Tajikistan Azerbaijan Togo Guyana Guinea-Bissau Gambia Comoros Maldives	Underdeveloped
30 to 39.9	3	Pakistan (33.8) ; Egypt(34.7) ; Nigeria(32.4)	Underdeveloped
40 to 59.9	2	Kazakhstan (43.8) ; Malaysia (40.8)	Relatively Underdeveloped
60 to 79.9	1	Indonesia (72.3)	Relatively Developed
80 to 100	1	Turkey (100)	Developed

Source: Calculated by Author from Table 1

Figure 2. indicates the Relative Level of International Finance Development in the OIC countries. As the figure shown regarding the relative level of international Finance Development, 2.17 percentage of the OIC countries are developed, 2.17 percentage of the countries are Relatively Developed, 4.35 percentage are Relatively Underdeveloped and 91.6 percentage of the OIC countries are underdeveloped in international finance, that It shows how the Most of OIC countries are weak in this section.



4. Conclusion

The purpose of the present paper was to measuring the level of development of the international finance sector in the OIC countries in 2009. To do so, we used the data of 8 variables of international finance from SESRTCIC (Statistical Economic and Social Research and Training Center for Islamic Countries) center for 46 countries of OIC region that reported in 2012.

The results of paper show that the greatest amount of international finance development is related to Turkey. After Turkey the higher mark is related to Indonesia. Also, the results indicate that the difference between the estimated scores of international finance development among OIC countries are varied between minimum 0.09 score and maximum 0.77 that shown deep gap in international finance sector performance among OIC countries.

According to the finding, the only developed country in the international finance sector, among the OIC countries, was turkey. Indonesia is Relatively Developed and two countries which are Relatively Underdeveloped in international finance sector including Kazakhstan and Malaysia. The other 42 countries in this area are undeveloped. In other hand 2.17 percentage of the OIC countries are developed, 2.17 percentage of the countries are Relatively Developed, 4.35 percentage are Relatively Underdeveloped and 91.3 percentage of the OIC countries are underdeveloped.

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