GCC Stock Market Financial Centre Determinants and Classification with FAM Financial Attractiveness Model

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Abstract

The regional financial centres role is highly studied in literature mainly after the European integration. The regional financial centres “RFC” definition, characteristics and measurement method are our main purpose in this study. This study presents FAM “Financial Attractiveness Model” model as numerical indicator for the regional attractive financial centre, taking a real case the GCC “Gulf Cooperation Council” region. The GCC economic complexities and financial systems weakness increase the importance of the regional financial centre. In this paper, we test the GCC stock market financial centre changes by applying FAM model between 2000 and 2004 as an important period in the GCC countries due to the regional economic changes. We test the sub periods from 2000 to 2002 then from 2002 to 2004 in order to see the changes in the regional financial centre and then to compare with the IMF anchor regional financial centre.

Keywords: Financial place attractiveness; Regional financial centres; GCC stock market attractive centre; FAM financial attractiveness model

Introduction

The regional financial centre plays an important role in the regional financial integration process [1]. In this paper, we will study the regional financial centre’s efficiency taking the GCC “Gulf Cooperation Council” region as a real case to study. Several studies tried to formulate a uniform model of measurement for the financial place attractiveness but this model does not exist yet. Due to the absence of a specific model, in this study we present FAM “Financial Attractiveness Model”.

This study is divided into three main sections. The first section presents a historical and theoretical overview for the financial place. The second section introduces a financial attractiveness model "FAM" respecting the ancient factors plus recent ones. Continuously, the third section measures the GCC countries stock markets performances influences on the GCC financial centres through applying the FAM model.

The GCC FAM-financial centre resistance is tested during specific years during 2000 and 2004 and then more specific from 2000 to 2002 and from 2002 to 2004, due to the economic and financial changes of these periods in the Middle East region mainly due to the regional wars and to the availability of data.

Literature Review

The financial place term had attracted many economists and international financial institutions attention during the economic and financial theories evolution. Financial place is a bundle of financial activities and services; it is not just financial actors “enterprises”, traders, or even markets [2]. Defining the financial place and characteristics took different dimensions over the years, each based on one or multiple financial or economic base, which made it hard to achieve a uniform definition “characteristics, elements and effective factors”.

During the last decades, the international financial poles had focused on improving their financial “places” positions. The financial place term importance is increased by time, while the financial place definition is not uniformed yet. Most country is economic, financial and monetary policies makers believe on developing their financial place/position [3]. The financial attractiveness place is an important target for many developed or developing countries, but the meaning for this term is not clear for all of them; Is it where the financial markets active companies “NYSE, NASDAQ, CAC4 etc? Is it where the qualified payments systems? Is it where the derivative markets are more active? Is it where the financial systems especially the banking systems are more active? Is it where the financial institutions “Brokers, risk and market analysis, insurance and re-insurance, statistics” more efficient? Is it where the qualified human resources and ITs? Or is it a mixture of all these? [1].

The central bank of France, defined the financial place in two points: “les lieux and les place”. In the English terms, these two points have the same meaning “the place”. “Les Lieux” ensures the meeting/presence for different effective actors in realising a good functioning for the financial markets operations within important eco-system synergies [4]. “Les places” is the financial-economic agents, specialised services and essential link that direct their operations and facilitate the economic and financial sphere decision makers’ policies [5-7]. The first point “les lieux” can be considered as the background “financial markets and eco-systems” and “les place” as the factors and market actors.

The growth of financial centres can be traced back to the restrictive regulatory regimes in many advanced countries in the 1960s and 1970s. These regimes blocked the flow of capital to and from other countries (excluding trade financing), or imposed restrictions on the interest rates banks could offer, or raised banks funding costs in domestic markets (for example, through the imposition of high non-interest-bearing reserve requirements) [2,8]. These restrictions were intended to provide governments with more control over monetary policy, encouraged a

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Received November 05, 2015; Accepted December 09, 2015; Published December 16, 2015
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shift of deposits and borrowing to less regulated institutions, including banks in jurisdictions not subject to such restrictions. According to Banque De France, the main indicators to measure the financial place attractiveness are the quantitative measurements, which can be reached by certain precision. Three essential dimension can precise the financial place attractiveness level, through comparing the following main factors:

- Offer-Supply capacity “financial sector size, total savings amounts”
- The international integration level “especially, the international financial actor’s participation in the local market”
- The business size quantities treated and directed by the financial place “local market”

Banque De France [9] had mentioned that these three dimensions could be reached by some statistics. The financial place measurements took a new direction through focusing on the financial centres specifications and competition factors as one of the essential indicator or factors for the financial place attractiveness. “Banque De France” specified that the financial place attractiveness factor in four point (the financial centres competitions factors): the presence for financial competitors; regulatory Systems; financial openness; and new technology.

A more practical definition of an IFC (International Financial Centres) is a centre where the bulk of financial sector activity is on offshore on both sides of the balance sheet. IFCs are usually characterized by:

- Jurisdictions that have relatively large numbers of financial institutions engaged primarily in business with non-residents
- Financial systems with external assets and liabilities out of proportion to domestic financial intermediation designed to finance domestic economies
- More popularly, centres which provide some or all of the following services: low taxation; moderate or light financial regulation; banking secrecy and anonymity

International Financial Centres (IFCs) are large international full-service centres with advanced settlement and payments systems, supporting large domestic economies, with deep and liquid markets where both the sources and uses of funds are diverse, and where legal and regulatory frameworks are adequate to safeguard the integrity of principal-agent relationships and supervisory functions [10].

Regional Financial Centres differ from the IFC by their financial markets development and intermediate funds in and out of their region. The regional financial centres might have less strict characteristics and conditions then the international one. The historical presentation for RFC, at the financial researches stage could be returned to 60’s and 70’s. Three decades after, IMF during consecutive researches had noted that there was limited evidence on the direct risks to the global financial system posed by RFCs. They also noted that when RFC standards for supervision are inadequate and comprehensive risk analysis is hampered by a lack of reliable data on activities in RFCs [11].

Focusing on RFCs characteristics and effective factors, the financial place attractiveness factors can be classified in two panels “traditional and recent factors”:

- First, this is the traditional factors “fiscal and regulatory systems, jurisdictions and protective laws, qualified human recourses and technological level etc.”
- Second, this is the recent factors that would be updated according to the financial markets evolutions, conditions and changes. These factors are highly flexible and vary with the cases

**Methodology of Research (FAM model)**

Financial place definition took different dimensions where different researchers' views made the measurement methods specification harder. Due to the absence for a unified method of measurements, we formalize a financial place attractiveness model FAM that mixes the traditional and recent financial place factors. In applying FAM, we will use empirical economic, monetary, financial, and sociopolitical data between 2000 and 2004 for the GCC countries in classifying their regional financial centre.

Several factors play an important role in financial attractiveness place, which can be presented in two groups. The First group is the place or the background/natural tendencies, which is classified as traditional “exjurisdictions, fiscal and regulatory roles, technological and human recourses qualificationsetc”. Second group, the flexible factors, which is considered as recent factors “ex. new technologies developments IT”. However, numerical measurements have another methodology then the literary one.

The second group of financial attractiveness place factors have a larger role in leading the financial place due to which the first group role would be limited to anchoring the background of the place. Moreover, the second group include political, economic, monetary and financial factors.

FAM model: formulated from different political, economic, monetary and financial factors will be calculated in measuring the RFCs. Although, each factor effectiveness percentage “%” varies according to each case study.

\[
FAM = f(Pa, Ea, Ma, Fa)
\]

Pa, Ea, Ma and Fa; are political, economic, monetary and financial attractiveness, respectively.

\[
\text{n}
\]

Regional FAM=Σ FAMI

i→n

n is the total number of region’s members and i is each country.

\[
FAMI = a.Pa + b.Ea + c.Ma + d.Fa + \mu
\]

a, b, c and d represent the percentage of effectiveness for each factor in FAMI and \( \mu \) is the other factors “if existed”.

\[
P = \frac{\Sigma p \cdot PiEa}{\Sigma e \cdot EiMa} \cdot \frac{\Sigma m \cdot MiFa}{\Sigma f \cdot Fi}
\]

P represents the political elements that effect FAMI, E represent the economical elements that effect FAMI, M represents the monetary elements that effect FAMI and F represent the Financial elements that effect FAMI

The percentage of effectiveness for each element varies with regions structure. The main FAM formula is:

\[
Y = aX + bZ + cW
\]

Y is the financial centre as the region financial position, X is the
internal factors it’s the sum of the region’s member’s factors/evolution, Z is the regional factors, and W is the international factors.

The political, economic, monetary and financial performances influences on the RFC specification can be measured as follows:

\[ \begin{align*}
Y_p &= aX_p + bZ_p + cW_p \\
Y_e &= aX_e + bZ_e + cW_e \\
Y_m &= aX_m + bZ_m + cW_m \\
Y_f &= aX_f + bZ_f + cW_f
\end{align*} \]

Yp represents the Political Position/situation, Ye represents the economic position, Ym represents the monetary position, and Yf represents the Financial position.

The research hypothesis:

H1. The regional financial centres are affected by the economic, monetary, financial, socio-political factors.
H2. The regional financial centre is different from the anchor regional financial centre.
H3. The regional financial centre is changing with time within the same regional.

Empirical Test for the GCC Stock Market Financial Centre FAM

In this section, FAM model will be applied on the GCC as integrating region stock market in order to study the GCC stock markets financial centre [12,13]. The stock markets sensitivity, especially for the emergent economy regions, makes the regional stock market financial centre specification harder. We test the GCC financial stock market centre during 2000 to 2004 due to the important economic changes in the GCC region after Iraq war, increase in oil prices (GCC oil producers countries), and the increase in the GCC stock market activities, then in two sub-periods from 2000 to 2002 and from 2002 to 2004.

GCC stock markets overview

GCC (Gulf Cooperation Council) member countries do not treat international or even intra-regional capital investments uniformly. Financial integration remains a distinct goal, while it has been overtaken by GCC functional arrangements. This regional integration is important because the GCC stock markets as a group may be able to offer investment opportunities not possible by one individual GCC market. These markets offer capital-rich GCC equity investors unique diversification benefits associated with optimum portfolios with a balanced mix of domestic and international securities. GCC stock markets are fully accessible to GCC investors, while they have remained relatively closed to international foreign investor.

The underdeveloped GCC stock markets structure limits incentives for participation in these markets. It is likely, though, that as financial integration proceeds, the regional market can become more attractive to international players [14].

However, effective securities market integration presumes the existence of some integration of the regulatory and supervisory framework [15]. If market participants are subject to multiple frameworks, and particularly if they are not harmonized, as is the case across GCC, then they are likely to face uncertainties, complexities, and increased costs, both directly in terms of having to comply with multiple regulatory regimes, and indirectly in having to incur the cost for multiple monitoring and enforcement regimes [3]. The old-experienced markets, like Bahrain’s one, didn’t show an important participation in these financial boom. We will apply FAM model on measuring GCC centre at the stock markets side depending on quantitative factors.

GCC financial centre as IMF classification

According to the traditional and recent factors “anchor factors, the Middle East financial centre passed by three dimensions: Beirut, Bahrain, and lately Dubai as per IMF classification [11]. Middle East region has two basic RFCs Beirut and Bahrain recent studies focus on adding Dubai to this chain”. Three decades ago, before the Lebanese civil war, Beirut had seldom dominated the Middle East financial centre. The regional political and economic changes had played an important role in shifting the RFC to Bahrain’s benefit. However, at the beginning of the last decade of the twentieth century, the end of 15 years of Lebanese civil war, with the effective Lebanese financial reform strategies, which led to remove the war’s aches and to share Bahrain with the Middle East financial centre. Lately, the remarkable financial reform strategies for UAE might present Dubai as one dimension of the Middle East financial centre triangle as anchor centre.

Results and discussions GCC financial centre “stock market-FAM model”

FAM model general formula \( FAM_i = aX_f + bZ_f + cW_f \)

Xf is the sum of the GCC stock market quantitative factors: market size, capitalization and its growth rate; market liquidity/return ratio and profitability/gains indexes for each GCC country respecting the effectiveness percentage.

Zf and Wf represent the financial status at regional and international stage respectively. Both factors Zf and Wf are considered fixed with respect to each other.

First step: Data base collection: The economical performances factors are divided into four categories A, B, C, D and E “A1, A2 and A3”, B1, B2 and B3; C1, C2; D1 and D2; E1 and E2 (Table 1, Appendix), transaction values, market capitalisation/S, market capitalisation/GDP, turnover ratios and gain index, respectively.

Stages of calculation are classified as follows:

- Data collection from the possible resources “countries central banks statistical publishes/IMF or Word Bank reports/or any available statistical reports”
- Data organisation and preparation to FAM model
- Score table flexible ranges, according to each factor (minimum and maximum score) and to the scored average data in a respecting [1→5](Tables 1-7, Appendix)
- Data formalisation according to each factor ranging (Tables 2 and 3, Appendix)
- Ranging the slope of efficiency [a] for each factor according to the author’s estimation that builds according to the region’s member’s situation
- Overall score after applying the FAM general model

Second step: Data organization: Collecting the data is the first step in order to elaborate them in a descriptive one. Thus, each of the above factors will participate in classifying the GCC’s members in the stock market centres. Qf= Σai*f; (a) represents the importance for each factor...
(i) in the model $\sum a_i = 1$ or 100% and (f) represent each factor that could affect the stock market directly (data type; Numerical availability) (Table 8, Appendix).

**Third step: model score ranking**: Ranking method is based on the maximum and minimum score for each element (i.e A3 according to Table 1, Appendix (A3 row); 19.76 min and 156.41 max). So, we took the average spread to make it between 0→15 as (0→5) with a range of 30 points, the negative score possibilities according to each factor (i.e. evolution might be –ve if there is a deviations).

**Fourth step**: The fourth step is to formalize the organized data (Table 1, Appendix) according to ranking (Table 2, Appendix), (i.e A3 for Bahrain is calculated as follows: 14.124 scored (Table 1). So, it’s between the (0, 30→(0, 1) entity in Table 2, Appendix (A3 column), then (0→19.76)/30 + (0→5) = 0.6586 (Table 3). The formula slops a= at+am+ar+ag=1 division will be as follows: 0.3; 0.3; 0.2 and 0.2 for transactions (avTran 10% and Ev 20%), market capital (avMCap 10% and Ev 20%), turnover ratios (av Turnover 15% and Ev 5%) and gain indexes, respectively.

From the above graph, we can deduce that Saudi Arabia, the newly developed stock market, is the GCC’s stock market centre for the average 4/5 years (Figure 1). This surprising result for a new developed market over the old ones increases the questions on the GCC’s stock market financial centre resistance. A minor evolutionary changes analysis would help better, we’ll re-test GCC’s stock market centre in sub-periods from 2000 to 2002 and from 2002 to 2004. However, one holder would absolutely decrease the hazard probability of Saudi Arabia positioning and increase the centre’s resistibility.

The above results show that GCC financial centre is effectively moving at the region stock market level. The sub-period and global predictions heterogeneity “Kuwait, Dubai and Saudi Arabia”, in a narrow comparison margin period, leads us to classify the GCC’s centre resistance in a high fragility and flexibility categories. Moreover, during the latest decades of the nineteenth century this centre was dominated by Muscat (Bahrain’s capital, the financial hub of the Middle East). The stock market centre was turning to one face to Kuwait’s benefit and then Dubai’s (UAE) and finally to Saudi Arabia. According to the GCC financial centre “stock markets” low resistance level, we recommend to divide the regional stock markets reform establishment responsibility between Saudi Arabia and Dubai. Thus, studying the GCC banking, financial, monetary, economical and socio-political system performances influences on RFC resistibility will improve the prospective of this study.

**Conclusion**

In this paper, we focused on GCC financial centre through applying our FAM Model on the GCC stock markets and comparing it to the anchored regional financial centre “IMF classification”. The test results showed that the Middle East anchor FC “Beirut and Dubai” were not the same as the RAFC “FAM model” during 2000-2004 period. The anchor factors present two financial centres for the Middle East, Bahrain and Dubai. FAM model test on “GCC” stock market indicates that the regional attractive financial places were Saudi Arabia, Kuwait and UAE “2000 to 2004”. Bahrain, mostly classified as the Middle East financial hub, recorded the lowest score in GCC financial attractiveness “Regional Attractive Financial centre RAFC 2000 to 2004”. While applying FAM model on GCC stock markets during sub-periods (2000 to 2002 and 2002 to 2004) presented different results, which decrease the GCC stock market resistance level. The GCC economical structure, “highly oil-dependence” with recent political regional instability beside the underdeveloped financial market, makes the FAM-GCC RFC resistibility an important indicator for high regional financial risks.

The main finding in this paper is that in the GCC region the attractive financial centre is not that IMF classified one (Saudi Arabia; Bahrain) which illustrates the third hypothesis of the research (H2).
Moreover, the GCC attractive financial centre low resistance, which appeared in short period’s centres changing, increases the need to focus on reforming the GCC financial centres under a harmonized regional financial strategy. However, this study results might not ignore the IMF classified financial centres “Bahrain and Dubai” role, where the professionalism would be a solution, which illustrates the third hypothesis of the research (H3). Therefore, studying another financial markets “Debt markets” beside the economical, monetary and socio-political performances influences on the regional attractive financial centre will be the main prospective of this paper, that might either support the stock markets FAM centres or IMF classified centres or might present new ones as stated in the research hypothesis (H1).

References