The Economic Consequences of mandatory IFRS adoption:
The Case of Arab Countries

Ahmed Bekkaye[*]

Ghardaîa University (Algeria)

Abstract:

The study aimed at revealing the nature of the relationship between the economic markets efficiency and the Arab financial reporting environment after converging with IFRS. The paper uses panel cointegration to investigate three main areas: Macroeconomic environment, Goods market efficiency, Market size, by using the Eviews.7 program. **Findings**: the results showed a long run relationship between the economic markets efficiency and the quality of accounting in Arab countries during the study period. This paper provides new empirical evidence in the context of studying the economic dimensions of IFRS in the Arab economies.

Keywords: International accounting convergence; IFRS; Economic Consequences; the economic markets efficiency; Arab countries.

Jel Classification Codes: F63; G39; M21; M41; M48; M49;

* Corresponding author, e-mail: bekkayeahmed@mail.com

I. Introduction:

"Economic growth promises a better world" (Cooper et al, 2003, p 361), "the internationalization of accounting often start from the presumption of the international markets efficiency" (Graham and Neu, 2003), this is the main worldwide generator of a strong convergence with IFRS, and one of many important reasons meant to eliminate the significant differences concerning the accounting treatments applied to the same economic phenomena. Business leaders around the world think that IFRS adoption will be important for economic growth, and in order to get into wealth of world, more and more countries are willing to exchange their national GAAP for IFRS, more countries have started to acknowledge the importance of financial reporting for economic reasons where it is believed that countries adopting IFRS have higher reporting transparency and comparability, greater chances to attract more investment, increase financial surplus, and achieve higher economic growth rates ...etc. (Edward E. Chamisa, 2000, p 268 ; Xanthi Gkougkousi & Gerard Mertens, 2010, p 04 ; Petya Platikanova & Jordi Perramon, 2012 , p 504).

In fact, talking about the economic aspects of IFRS brings with it many questions such as: Who sets accounting standards? Are the markets (voluntary adoption)? Or governments (mandatory adoption)?. Who Benefits from the Adoption of IFRS? Are: Capital markets/debt markets or Large firms/SMEs ...etc.? (Shin'ya Okuda, 2010); what is the relationship between the transparency of financial reports and economic growth and stages of economic development? And it's various effects on the investment markets, savings and consumption, and whether economic openness imposes adoption of IFRS? (Riahi-Belkaoui, 2000), and from his side, Demski (1973), Leftwich (1980) belief that the real question is: How can measure changes in the macroeconomic policies by adopting IFRS?; and, What factors could significantly influence countries` decisions to adopt IFRS?; How can IFRS make a difference in accounting quality in the context of different economic environments?; Does IFRS compliance improve a firms information environment in a weak economy? (Karsten Eisenschmid & Matthias Schmidt, 2014, P 13), these questions clearly indicate that IFRS is a huge economic proposition considering that the objective of economic policymakers is to make a radical change rather than merely to provide alternative accounting rules.

In this study, we provide evidence on the validity of previous claims by examining the macroeconomic effects of mandatory IFRS adoption on the economic markets efficiency in Arab countries from 2007 to 2018. Our findings contribute to the literature in several ways. Firstly, we show that changes in accounting methods precede changes in the economic markets efficiency. Secondly, understanding the factors influencing the quality of the financial reporting environment in Arab Economies, and this contributes to the substantial debate regarding the benefits of international harmonization with IFRS. Finally, to come up with some Results and recommendations that contribute to the advancement of Arab Economies and perhaps to clarify what must be done in the future.

Noteworthy, this paper is organized as follows. The next section explains the theoretical framework and literature review, Section 3 explains the research methodology (including sample selection as well as the development of hypotheses and empirical models). In section 4 we exposing the empirical results obtained. The final section provides a summary of results and conclusions.

136

Roa Iktissadia REVIEW, University of El Oued, Algeria, V09, N01, 2019.

The political economy is based on liberalism, which has long roots in the history of the economy as a process of enlightenment and progress. Thinkers such as John Locke, Adam Smith, and David Ricardo are representatives of this school of thought which embraces free market liberalism, and which adopts the principles of: full competition, freedom of movement of goods and persons, freedom of entry and exit from the market, homogeneity of goods, the principle of invisible hand, …etc. (Nguyen, Lisa et al, 2012, p 05).

Based on this principles, and according to accounting theory, Companies selection of a particular accounting method will depend on its operating circumstances and the nature of the socio-economic environment and the set of regulations in which the companies operates, which by necessity may require different accounting treatments. Indeed, we would argue that accounting diversity is the natural result of varying business circumstances, and this have important implications for the measurement of the impact of harmonization on accounting practices, which should take into consideration at the very least the diversity resulting from real differences in operating circumstances rather than just assume that harmonization implies a move towards uniformity. Therefore, it is not surprising to observe in practice that some firms write down their fixed assets using more than one method of depreciation, as the various assets employed by these firms differ in nature and thus require different depreciation schedules. According to Emenyonu and Gray (1992 and 1996), Murphy (2000) and Parker and Morris (2001), Rahman, Perera and Ganesh (2002), the maximum harmony would be achieved when all firms adopt exactly the same set of accounting treatments for a given financial statement item by its industry peers (Aziz Jaafar & Stuart Mcleay, 2011, p 15). It should also be recognized that a firms that diversifies its operations is likely to report the use of two or more accounting treatments. According to Mark DeFond et al (2010), the increased uniformity is defined as an increase in the number of firms using the same accounting standards, and the increase in uniformity occurs only when a large number of industry companies adopt the same methods/accounting standards, this also requires all firms to follow identical convergence strategies (Mark DeFond et al, 2010, p 05).

From this angle, ''Accounting quality'' can be defined as the extent to which the financial statement information reflects the underlying economic situation. (Huifa Chen et al, 2010, p 220); Ball et al (2003) knows it and simply: ''it is transparency in the presentation of basic transactions the company'' (Ray Ball et al, 2003, p 242). According to Penman (1984), financial reports can only be regarded as useful if it represents the "economic substance" of an organization in terms of relevance, reliability, comparability and aids interpretation simplicity (Colwyn Jones, Robert Luther, 2005, p 02).

And from a more economic point of view, because that the firms calculate the costs of products and sales; profits and losses; and the wealth using one or other/more of the accounting methods, Hayek's 1935, 1948 predicts that the accounting methods fall within the price mechanism as an information system and an effective leader created by the market himself to collect and integrate financial information and market relations in a way that makes them general and valid for all dealers to make the best decisions, Riahi-Belkaoui, (2000), argues that the standard mechanism of IFRS is its ability to provide an optimal information system that exceeds the benefit of any other system, in other words the efficiency of allocating resources (capital). Zeff (1978) defines the economic consequences of IFRS as: ''the impact of financial reporting on the behavior of decision makers in

business, governments, investors, creditors …etc.'' (Norman Mohd Saleh et al, 2013, p 51). In a similar vein, Holthausen and Leftwich (1983) view accounting as having economic con-sequences "if changes in the rules used to calculate accounting numbers alter the distribution of firms" cash flows, or the wealth of parties who use those numbers for contracting or decision making" (Ulf Brüggemann et al, 2012, p 10). Lars Oxelheim (2008) asserts that this efficiency occurs as a result of the improvement of the accounting methods for transparency which translates quantitatively into the reduction of the economic risk premium as a part of the capital, thus, investment rises and economic growth is thus achieved. In a report on "The International Standards Project", Buthe and Mattli (2008) stated that "there are several good reasons for this drive toward a single set of international standards, including that differences in financial reporting lead to differences in the kind and amount of information available to investors, which impedes the efficient allocation of investment capital" (Fosbre et al, 2011, p 113). In a global survey of business leaders on the importance of IFRS for economic growth, 55% felt it was very important (AICPA, 2008). A 2007 survey by the International Federation of Accountants, (IFAC) of 143 leaders from 91 countries, 90% reported that a single set of international financial reporting standards was very important for economic growth in their countries, (International Federation of Accountants, IFAC, 2007). Therefore, the Group of Twenty, (G 20) leaders in 2009 called for the standard setters to redouble their efforts to complete convergence of global accounting standards by June 2011. (Op cit, p 116); While the information asymmetry is reflected as a problem of communication between management and shareholders at the macro level in the form of a distorted factor of the actual performance of companies, the loss of economic opportunities and the decline in profits, thus, IFRS helps to identify the appropriate strategy for the interaction of companies with their macroeconomic environments. (Lars Oxelheim, 2010, p 13); While Christensen, Lee & Walker (2008) notes that "IFRS adoption has resulted in winners and losers; Rather than portraying IFRS as a uniformly good thing or a uniformly bad thing, it is important to recognize that some firms gain and some firms lose from complex, mandatory accounting changes such as IFRS, and trying to determine on what the economic impacts of adopting IFRS is near impossible, because there are so many variations and subtleties within different firms, industries and countries. Further, country-level implementation of IFRS has the potential to redistribute wealth within the country through differential impacts on the cost of capital" (Houqe et al, 2013, 48), it can be said that accounting methods are one of the mechanisms of wealth distribution. Hail, Luez, and Wysocki (2009) showed that the decision to adopt IFRS mainly involves a cost benefit tradeoff between comparability benefits for investors, cost savings accruing to multinational companies and transitional costs borne by all firms and the economy as a whole (Fosbre et al, 2011, p 113).

II– Methods and Materials

1. the problems

In accordance with the above literature review, our paper intends to answer the following research question:-

What is the Impact of Mandatory IFRS adoption on the efficiency of Arab economic markets during the period 2007 - 2018?

H₀: There is no significant relation between the economic markets efficiency and enhance the quality of the Arab financial reporting environment by adopting IFRS during 2007 - 2018.

For answer this problem, the study suggests the impact of enhancing the quality of the Arab financial reporting environment by adopting IFRS on Arab economic markets in three aspects as illustrated in Figure (02) (See Appendix). And from there, we have the following problems:-

H_{01}: Is there a long-term dynamic relationship between the macroeconomic environment and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018?

H_{02}: Is there a long-term dynamic relationship between the goods market efficiency and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018?.

H_{03}: Is there a long-term dynamic relationship between the size of the national market and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018?

2. Research hypotheses

Based on the figure 02 , and for the purpose of this study, the main Hypothesis is:-

The increase in the economic markets efficiency is driven by increased financial reporting quality in Arab countries by adopted IFRS during the period 2007 - 2018.

H_1: There is a statistically significant relationship between enhancing the quality of the financial reporting environment by adopting IFRS and the efficiency of Arab economic markets during the period 2007 - 2018.

Therefore, the research hypotheses of this study can be formed as follows:-

H_{11}: There is a long-term dynamic relationship between the macroeconomic environment and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018.

H_{12}: There is a long-term dynamic relationship between the goods market efficiency and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018.

H_{13}: There is a long-term dynamic relationship between the size of the national market and Ethical behavior in the Arab companies and/or Efficacy of corporate boards of Arab companies and/or Strength of auditing and reporting standards during the period 2007 - 2018.

3. Empirical models and variables involved

We use the degree of cointegration and causal relationships between the economic markets efficiency and the Arab financial reporting environment variables of interest in the long-run starting with 2007, by using the traditional Johansen-Fisher panel cointegration model with a related vector error correction model (VECM) proposed by Johansen (1988) and Johansen and Juselius (1990). In order to empirically test the research hypotheses, the general model is:-

The economic markets efficiency MAC/GME/MS = Ethical behavior of firms EBF + Efficacy of corporate boards ECB + Strength of auditing and reporting standards SARS + εi

$$MACi \text{ or } GMEi \text{ or } MSi = B0 + B1 \ EBFi + B2 \ ECBi + B3 \ SARSi + \varepsilon i$$

The variables are defined as follows:

Firstly: the independent variables used are: (1) the ethical behavior of firms EBF: this indicator reflects the evolution of ethical behavior in Arab companies after adoption IFRS; (2) Efficacy of corporate boards ECB: This index reflects the board of directors in Arab companies after adoption of

IFRS; (3) Strength of auditing and reporting standards SARS: This indicator shows the development of the Arab national accounting standards by adoption of IFRS during 2007 - 2018.

Secondly: the dependent variable used in this study is the economic markets efficiency by using three indicators: (1) Macroeconomic environment MAC: this indicator reflects the development of Arab macroeconomic environment during 2007 - 2018; (2) Goods market efficiency GME: this indicator reflects the Arab Goods market efficiency during the period 2007 - 2018; (3) The size of the national market MS: the indicator shows how the volume of Arab markets grew during the period 2007 – 2018.

Based on the previous model, estimation models are given in 03 models: Pooled OLS Regression Model; Fixed Effect Model; Random Effect Model. Wald test was used to select the model accuracy Pooled Effect Model (OLS) or Fixed Effect Model (FEM). If the test statistics F selected from OLS (or the Prob = (...) >5% we choose the pooled effect model (OLS). in this case the second test (Hausman test) is not necessary. However, if FEM better Hausman test should be conducted. The H0 in this test is: all dummy variables = 0 or (C(5)=C(6)=C(7)=C(8)=C(9)=C(10) =C(11)=C(12)=C(13)=C(14)=C(15)=0), Which:

H_0: all dummy variables = 0 (Pooled OLS Regression Model)

H_1: one dummy ≠ 0 (Fixed-effects model)

Hausman test 1978 was used to select the model accuracy Fixed Effect Model or the Random Effects model, the H0 for this test is as follows:-

H_0: Random-effects model appropriate or H0: E ($\alpha i/Xi$) =0

H_1: Fixed-effects model is appropriate or H1: E ($\alpha i/Xi$) ≠0

If the P-value less than 5% we choose the Fixed effects model. In the case of the reverse, a random effects model is selected (P-value> 5%).

4. Sample selection and database

Data used in this study is a quantitative data. Samples collected in this study were 144 observations during the period 2007 - 2018 (12 years). Data source of 12 Arab countries: Algeria, Egypt, Bahrain, Jordan, Kuwait, Tunisia, Oman, Mauritania, Morocco, Qatar, Saudi Arabia, United Arab Emirates was taken from the Global Competitiveness Reports issued by the World Economic Forum: http://reports.weforum.org/global-competitiveness-index-2017-2018/downloads/, for years: 2007, 2008, 2009, 2010... 2018. Subsequently, comparative data which are referred to the research were collected "by hand" and were transferred to spreadsheets for processing.

III– Results and discussion

The results of the study can be addressed in the following order:-

1. by using the Macroeconomic environment index

Based on table B (See Appendix) the cointegration test aims to accept at least one causal relationship between MACt and ECBt, EBFt, SARSt, because the Prob value less than 5%: Prob= (0.005) <5%, therefore we refuse H0 and accepted H1, in other words, there is a long-term dynamic relationship between the macroeconomic environment and Arab financial reporting environment in period 2007 - 2018.

Based on Wald test Results and Hausman test results in same table B, it was proven that Fixed Effect Model is better to use. This is indicated by the value of a probability of (0.000, 0.0077) which

is less than 0.05 significant at alpha 5 %: P-value (0.000, 0.0077) <5%, therefor we reject the H0 (H0: Random Effect Model And H0: All Dummy=0 (Pooled Regression Model)) in two test and accepted H1: the Fixed Effect Model is the best in representing the relationship between the Arab financial reporting environment and the macroeconomic environment.

Based on the test results of panel data regression models using the Fixed Effect Model can be seen in the following (See table C in Appendix):

$$MACt= 4.1 + 0.5342\ EBFt - 0.7094\ ECBt + 0.6214\ SARSt$$
$$Prob\ \ (0.000)\ (0.0012)\ \ \ \ \ (0.0000)\ \ \ \ \ \ (0.0009)$$

In general, the results imply that the changes in the macroeconomic environment can be explained by long-term the changes in all the variables such as Ethical Behavior of Arab Companies, Efficiency of Corporate Boards, Strength of auditing and reporting standards, because p-value less than 5 %: Sig= (0.0012, 0.0000, 0.0009) <5%, and the model with a strong predictive capacity with an R-squared value of 88.11%.

2. by using the goods market efficiency index

By using the same method, we can see on table B that the cointegration test aims to accept at least one causal relationship between GMEt and ECBt, EBFt, SARSt, because the Prob value less than 5%: Prob= (0.038) <5%, therefore we refuse H0 and accepted H1, in other words, there is a long-term dynamic relationship between the goods market efficiency and Arab financial reporting environment in period 2007 - 2018.

Based on Wald test Results and Hausman test results in same table B, it was proven that Fixed Effect Model is better to use. This is indicated by the value of a probability of (0.000, 0.0298) which is less than 5 %: P-value (0.000, 0.0298) <5%, therefor we reject the H0 (H0: Random Effect Model And H0: All Dummy=0 (Pooled Regression Model)) in two test and accepted H1: the Fixed Effect Model is the best in representing the relationship between the Arab financial reporting environment and the goods market efficiency.

Based on the test results of panel data regression models using the Fixed Effect Model can be seen in the following (See table C in Appendix):

$$GMEt= 1.5963 + 0.4436\ EBFt + 0.0735\ ECBt + 0.0137\ SARSt$$
$$Prob\ \ \ (0.000)\ \ (0.000)\ \ \ \ \ \ \ \ (0.0895)\ \ \ \ \ \ \ \ \ (0.7972)$$

In general, the results imply that the changes in the goods market efficiency can be explained by long-term the changes in variable Ethical Behavior of Arab Companies, because p-value less than 5 %: Sig=(0.000)<5%, with no relationship between the goods market efficiency and two variables such as Effectiveness of corporate boardsand Strength of auditing and reporting standards, because p-value large than 5 %: Sig = (0.0895, 0.7972) > 5 %, and the model with a strong predictive capacity with an R-squared value of 97.28%.

3. by using the size of the national market index

By using the same method, we can see on table B that the cointegration test is aims to accept at least one causal relationship between GMEt and ECBt, EBFt, SARSt, because the Prob value less than 5%: Prob= (0.0051)<5%, therefore we refuse H0 and accepted H1, in other words, there is a long-term dynamic relationship between the size of the national market and Arab financial reporting environment in period 2007 - 2018.

Based on Wald test Results and Hausman test results in same table B, it was proven that Fixed Effect Model is better to use. This is indicated by the value of a probability of (0.000, 0.0081) which is less than 5 %: P-value (0.000, 0.0081) <5%, therefor we reject the H0 (H0: Random Effect Model And H0: All Dummy=0 (Pooled Regression Model)) in two test and accepted H1: the Fixed Effect Model is the best in representing the relationship between the Arab financial reporting environment and the size of the national market.

Based on the test results of panel data regression models using the Fixed Effect Model can be seen in the following (See table C in Appendix):-

$$GMEt= 4.3424 - 0.0011\ EBFt + 0.2182\ ECBt - 0.1821\ SARSt$$
$$Prob\quad (0.000)\quad (0.9898)\qquad (0.0076)\qquad (0.0695)$$

In general, the results imply that the changes in the size of the national market can be explained by long-term the changes in variable Effectiveness of corporate boards, because p-value less than 5 %: Sig=(0.0076)<5%, with no relationship between the size of the national market and two variables such as Ethical Behavior of Arab Companies and Strength of auditing and reporting standards, because p-value large than 5 %: Sig = (0.9898, 0.0695) > 5 %, and the model with a strong predictive capacity with an R-squared value of 92.32%.

IV- Conclusions

First: based on the results of the test statistic using panel data, there is evidence that hypotheses H11; H12; H13 are supported. in other words, There is a long-term dynamic relationship between the quality of the Arab financial reporting environment by adopting IFRS and the economic markets efficiency such as the macroeconomic environment; the goods market efficiency; the size of the national market.

Second: last empirical results clearly confirm the main hypothesis that the adoption of IFRS has improved the Arab economic markets efficiency during 2007 – 2018. Our evidence suggests that the increase in the Arab economic markets efficiency is more likely a result of improved financial reporting quality; we find that IFRS adoption has a significantly greater effect on the economic markets efficiency in the Arab countries.

The research findings are summarized as follows: (1) There is a significant relationship between IFRS adoption by companies and the competitiveness of Arab economies; (2) The adoption of IFRS is an effective tool for enhancing the efficiency of Arab economies; (3) There are still some challenges militating against the success adoption and implementation of IFRS in Arab countries.

As any other study of this kind of research, it is subject to a number of limitations. This study was conducted in the Arabs Economies, Therefore, caution is required in generalizing the results to other countries, and more research should be undertaken in other developing economies. Future research could expand the framework of this study, as more data becomes available in future, to raise further explanation of the models and to reveal more generalized findings in Arab countries or other.

142

Roa Iktissadia REVIEW, University of El Oued, Algeria, V09, N01, 2019.

References:

Aziz Jaafar and Stuart Mcleay (2011), **Country Effects and Sector Effects on the Harmonization of Accounting Policy Choice**, p 15, Abacus, available at SSRN: http://dx.doi.org/10.2139/ssrn.976677.

Christine Cooper, Dean Neu Glen Lehman (2003), **Globalization and its discontents: a concern about growth and globalization**, Accounting Forum, Vol 27, No 4, p 362.

Edward E. Chamisa (2000), **The Relevance and Observance of the IASC Standards in Developing Countries and the Particular Case of Zimbabwe**, The International Journal of Accounting, Vol 35, no 2, p 268

Fosbre, Anne B., Kraft, Ellen M. & Fosbre, Paul B. (2011), **US Adoption of IFRS May Help to Jumpstart the US Economy**, Accounting & Taxation, Vol 03, N° 02, p 109-113, 2012, Available at: https://ssrn.com/abstract=1946958.

Hakim Ben Othman, Anas Kossentini (2015), **IFRS adoption strategies and theories of economic development**, Journal of Accounting in Emerging Economies, Vol 05, n° 01, p 76.

Houqe, Muhammad Nurul and Monem, Reza M. and van Zijl, Tony (2016), **The Economic Consequences of IFRS Adoption: Evidence from in New Zealand**, Journal of International Accounting Auditing and Taxation, Vol 27, p 40-48, Available at SSRN: https://ssrn.com/abstract=1924667 or http://dx.doi.org/10.2139/ssrn.1924667.

Huifa Chen, Qingliang Tang, Yihong Jiang, Zhijun Lin (2010), **The Role of International Financial Reporting Standards in Accounting Quality: Evidence from the European Union**, Journal of International Financial Management and Accounting, Vol 21, n° 3, p 210-220.

Jones, Colwyn & Luther, Robert G (2005), **Anticipating the Impact of IFRS on the Management of German Manufacturing Companies: Some Observations from a British Perspective**, Accounting in Europe, Vol 02, p 167, Available at SSRN: https://ssrn.com/abstract=1360224.

Karim Mhedhbi (2010), **Analyse de l'Effet de L'adoption des Normes Comptables Internationales sur le** Développement **et la Performance des Marchés Financiers Émergents**, These doctorat, Tunisie, P 129/133.

Karsten Eisenschmidt, Matthias Schmidt (2014), **Integrating prediction markets into the due process of international accounting standard setting**, P 13, Available at SSRN: https://ssrn.com/abstract=2408517.

Lars Oxelheim (2010), **Globalization, Transparency and Economic Growth: The Vulnerability of Chinese Firms to Macroeconomic Shocks**, Journal of Asian Economics, Vol 21, N° 01, P 13.

Mark DeFond, Xuesong Hu, Mingyi Hung, Siqi Li (2010), **The Impact of Mandatory IFRS Adoption on Foreign Mutual Fund Ownership: The Role of Comparability**, Journal of Accounting and Economics, Vol 51, n° 3, p 01-07.

Nguyen, Lisa and Hooper, Keith and Sinclair, Rowena M.S (2012), **Resistance or Change in the Vietnamese Accounting Field**?, Proceedings of World Business and Economics Research Conference 2012, Available at SSRN: https://ssrn.com/abstract=2185148 or http://dx.doi.org/10.2139/ssrn.2185148.

Norman Mohd Saleh, Bahman Banimahd, Fakhroddin Mohamma rezaei (2013), **The effects of mandatory IFRS adoption: A review of evidence based on accounting standard setting criteria**, International Journal of Disclosure and Governance, Vol 12, n° 01, p 51.

Petya Platikanova, Jordi Perramon (2012), **Economic consequences of the first-time IFRS introduction in Europe**, Spanish Journal of Accounting & Finance, Vol. 156, p 504.

Ray Ball, Ashok Robin, Joanna Wu (2003), **Incentives versus Standards: Properties of Accounting Income in Four East Asian** Countries, Journal of Accounting and Economics, Vol 36, n° 1 et 3, p 242.

Ulf Brüggemann, Jörg-Markus Hitz, Thorsten Sellhorn (2012), **Intended and unintended consequences of mandatory IFRS adoption: A review of extant evidence**, European Accounting Review, Vol 22, n° 01, p 10.

World Economic Forum, **The Global Competitiveness Report**, of years: 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, pp: 55, 60, 65, 93, 91, 85, 99, 103, 91, 93, 41, 45, website: https://www.weforum.org/reports.

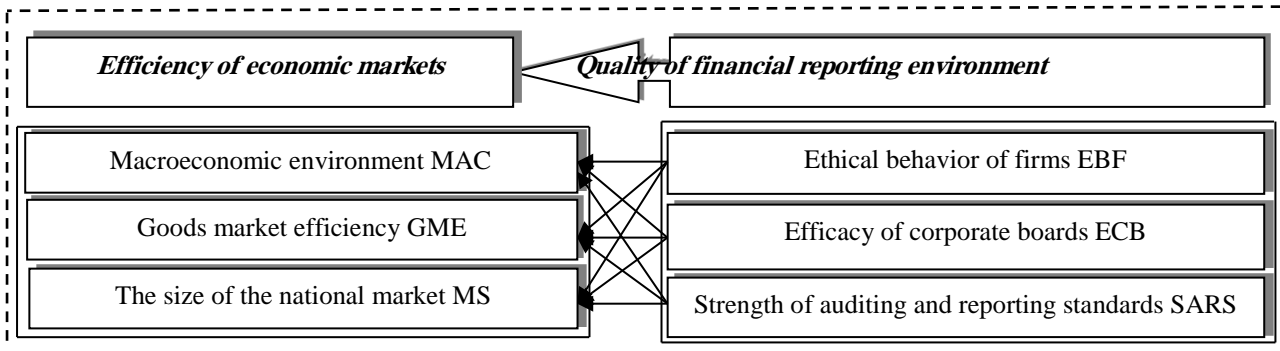Xanthi Gkougkousi, Gerard Mertens (2010), **Impact of Mandatory IFRS Adoption on the Financial Sector**, p 02-08, Electronic copy available at: http://ssrn.com/abstract=1651088.

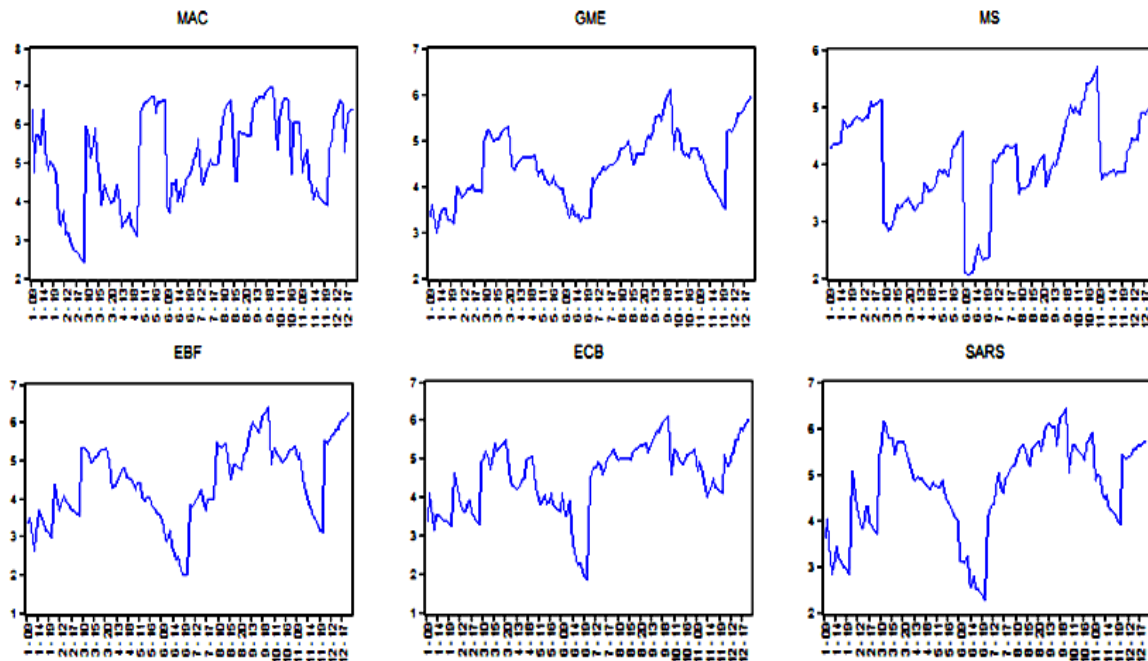# - Appendices:

Figure (1): the economic importance of IFRS
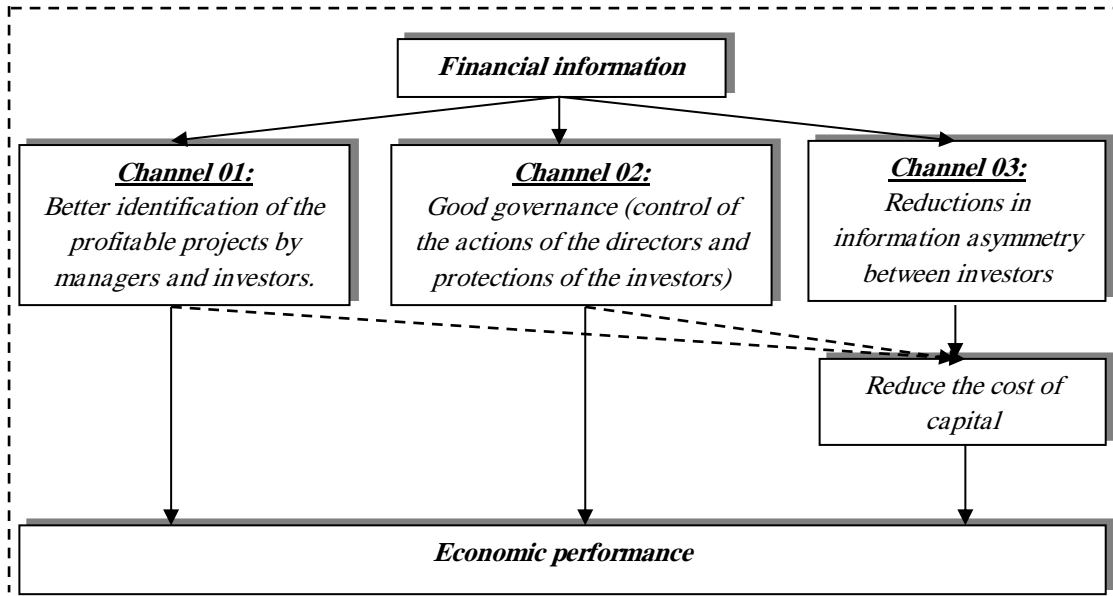
Source: Karim Mhedhbi (2010)

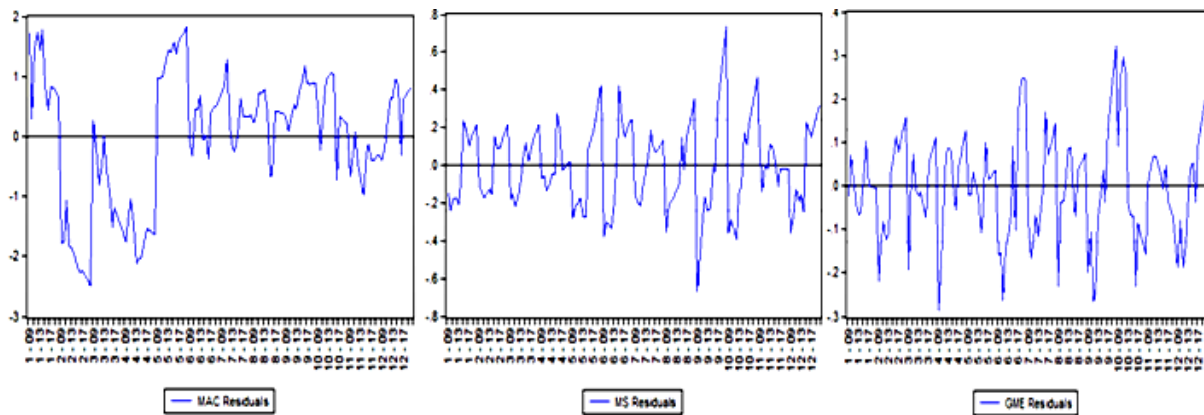**Figure (02): Suggest the factors and variables of the study**

Source: Prepared by the researcher.

144

Roa Iktissadia REVIEW, University of El Oued, Algeria, V09, N01, 2019.

Figure (03): the time series graphically

Source: data were processed using Eview.7

Figure (04): the residuals graphically

Source: data were processed using Eview.7

Table 1: The IFRS in the theories of economic development

Economic development theory	Modernization theory	contingency theory	World system theory
Accounting standard-setting strategy	Harmonization	Naturalistic	Particularism
Implication for the adoption of IFRS	Supports IFRS adoption without modification	Supports IFRS adoption, but only if modified for the local environment	Supports IFRS rejection
Prediction of the effects of IFRS adoption on emerging stock market development	Adoption of IFRS without modification should lead to high-stock market development	Adoption of IFRS with modification should lead to higher-stock market development	Adoption of IFRS should lead to lower stock market

Source: Hakim Ben Othman, Anas Kossentini (2015)

Table 2: Summary Results of Cointegration Test, Wald test and Hausman Test

Cointegration Test				
Test Summary	Residual variance	HAC variance	t- statistic	Prob
ADF (*MAC*)	0.18756	0.12067	-2.578658	0.005
ADF (*GME*)	0.17654	0.11124	-1.594623	0.038
ADF (*MS*)	0.198564	0.130251	-2.6358471	0.0051
H0 : No Cointegration H1 : It is Cointegration				
Wald test				
Test Summary	F- statistic		Chi-Square	Prob
Value (*MAC*)	64.07003		704.7703	0.000
Value (*GME*)	19.48551		214.3406	0.000
Value (*MS*)	122.8407		1351.247	0.000
H0 : Pooled Regression Model H1 : Fixed-effects model				
Hausman Test				
Test Summary	Chi-Sq. statistic		Chi-Sq. d.f	Prob
Cross-section random (*MAC*)	8.681009		3	0.0077
Cross-section random (*GME*)	8.964899		3	0.0298
Cross-section random (*MS*)	8.643325		3	0.0081
H0 : Random effects model H1 : Fixed effects model				

Source: data were processed using Eview.7

Table 3: Summary Results of Regression Models

	Coefficient	Std. Error	t- statistic	Prob (t)	R-squared	F- statistic	Prob (F)
MAC Model							
C	4.100473	0.452822	9.0554	0.0000	88.110	68.2966	0.0000
EBF	0.534217	0.161098	3.3161	0.0012			
ECB	-0.709397	0.147895	-4.7966	0.0000			
SARS	0.621442	0.183043	3.395	0.0009			
GME Model							
C	1.596356	0.131561	12.1339	0.0000	97.286	330.08	0.0000
EBF	0.44357	0.046805	9.47703	0.0000			
ECB	0.073514	0.042969	1.71088	0.0895			
SARS	0.013693	0.053181	0.25748	0.7972			
MS Model							
C	4.342397	0.246181	17.639	0.0000	92.324	110.80	0.0000
EBF	-0.001126	0.087582	-0.0128	0.9898			
ECB	0.218222	0.080404	2.714	0.0076			
SARS	-0.182147	0.099513	-1.8304	0.0695			

Source: data were processed using Eview.7

146

Roa Iktissadia REVIEW, University of El Oued, Algeria, V09, N01, 2019.